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AND

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Agriculture and the Mechanic Arts are the basis of Civilization.

M. TARVER & T. F. RISK,
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M. TARVER and T. P. RISK, Editors and Proprietors.

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THE

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ART. I.—INTERNAL IMPROVEMENTS.

Anticipating that the Legislature of Missouri will, at its approaching session, be called on to decide how far it will pledge the State to the encouragement of works of Internal Improvement, and, conceiving that the measure has not been sufficiently discussed before the people, we propose to submit a few remarks in reference to this subject for the consideration of our readers. The embarrassments that have been experienced by some of the States as a consequence of their connections with works of Internal Improvement admonish others to exercise great caution; but such cases are not to be regarded as proof that a State, acting on facts peculiar to itself, and wisely adopting the policy indicated by such facts may not afford substantial aid to works of Internal Improvement, with safety and profit to the community.

It may be admitted that where individual capital and enterprize are adequate to the accomplishment of works of Internal Improvement, it is better that the State should avoid all connection with such works; but cases may occur where owing to peculiarities in the physical character of the country and the social condition of the people, important works cannot be accomplished without aid from the State; and in such cases three points are presented for consideration. First, is the work proposed calculated to promote the prosperity and general welfare of the community? second, in what manner shall the State afford assistance? and third, to what extent?

The State of Missouri possesses within her own limits the elements of a great empire; her mineral wealth may be regarded as inexhaustible, and her agricultural resources equal perhaps to those of any other State of the Union; but, for the want of facilities of transportation neither mining nor agriculture will pay a profit to the producer, except in a few favored

locations adjacent to navigation. And, hence, the Iron, Coal, and fertile soil of large districts lie undisturbed, and are as useless for all practical purposes as they would be were they at the bottom of the ocean. Nor can the products of these districts reach a market on terms that will enable the producers to compete successfully with more favored locations, without the construction of works of great magnitude; a short rail road would be of little utility in Missouri: and the individual capital that can be spared from the ordinary channels of business, is inadequate to the construction of lines of sufficient length to be useful to the community, or profitable to the stockholders. And, hence, it may be regarded as almost certain, that unless the State comes up to the aid of individual enterprise, no important work can be accomplished within its borders for many years to come; and it remains with the people to determine whether they will continue contented with their present condition until the neighboring States shall have become so densely inhabited as to compel a portion of their population to emigrate hither, and bring the means and enterprise to develop our resources, or, whether in view of their own individual and social interests—actuated by the progressive spirit of the age—they will without further delay, enter on a course of manly competition with their neighbors.

But should the Legislature incline to afford substantial aid to works of Internal Improvement, in what way, and, on what principle should the State proceed to accomplish the objects proposed? Not by undertaking the work wholly on its own account: for the history of all such enterprises shows that individuals can, and do manage such matters with better economy than can the State Governments through their agents. But if even this were not the case, yet, it is scarcely possible that the State can construct a work on its own account without doing injustice to a portion of its constituents. No improvement can be so located as to afford equal advantages to all. For besides the commercial advantages, the real estate situate near the line of improvement may advance to double its former value, and still the fortunate owner bears no greater proportion of the burthen of constructing the work than one who, by reason of his remote situation, receives scarcely any benefit in return for his portion of the contribution.

This inequality of benefits accruing from works of Internal Improvement is inevitable; and a case could scarcely be conceived where, in our opinion, a State Government could embark in an enterprise of this nature without doing injustice to a portion of its constituents. But the state may become a stockholder to an extent commensurate with the general benefits of the improvement, without violating the principles of equality: especially, if the work be extensive, and calculated

to constitute a basis of a general system. The policy, recently adopted by some of the States, authorizing counties to subscribe for rail road stock, is calculated to distribute both the burthens and advantages of constructing railways and other works of improvement more fairly among the people than any other principle yet discovered. For it frequently happens that individuals whose estates are situate near to lines of improvement, though possessing ample means, refuse to subscribe for stock, avoiding all the responsibilities and inconveniences connected with the enterprise, that they may be the better able to avail themselves of the benefits accruing from its accomplishment. And some of these will not scruple even to profit by the misfortunes and embarrassments of those who, actuated by a generous public spirit, improvidently undertake more than they can accomplish. Justice demands that such individuals should be compelled to contribute their fair proportion to the improvement of the country; and this end can only be attained by state or county subscriptions. To the credit of the age, and happily for society, the individuals of this class are generally in the minority; and it is therefore in the power of the majority to compel them to be useful, without violating the principles of justice.

We regard subscriptions for stock, on the part of the State, as being preferable to any other mode of encouraging works of Internal Improvement; but even subcriptions should, in our opinion, be limited to such works as are necessary to constitute the basis or outlines of a system. Let us first of all project a system, and then construct one or more of the main stems or trunks; and the branches will be made by individuals and counties wherever they find it to be their interest to do so. By adopting this policy, it will be in the power of the State to impart life to a system which, when once fairly under way, will be carried out by individual enterprise, while every branch that shall be added will tend to enhance the value of the stock belonging to the State.

The amount of stock which the State ought to take, will always depend upon so many circumstances that each case as it arrises must furnish its own rule; but, in our opinion, it would not be sound policy for the State, in any case, to subscribe for stock exceeding one-fourth of the amount required to construct the work; for if individuals and counties immediately interested will not bear three-fourths of the burthen, it would be unjust to place more than one-fourth on those whose condition can scarcely be effected by the improvement. And, besides this, the State should not become a subscriber for stock in any work until individuals had given evidence of their confidence in its utility, by making liberal subscriptions.

Scarcely any subject can be presented to the statesman or

political economist, that requires more reflection or a greater degree of caution, than that of perfecting a system of Internal Improvement, and establishing the principles upon which it shall be carried out. A radical error in the plan or in the mode of execution generally proves fatal; and is worse than doing nothing; for it stands in the way of a second effort. No error is more common than that of undertaking to do too much in a given time. This has occasioned as much embarrassment perhaps as all other cases combined. By withdrawing a large amount of capital and labor from their usual employment, derangement is produced in all the pursuits of the community; and while money is more difficult to obtain, labor, provisions, and materials advance in price, until a revulsion takes place and the work of improvement is suspended for a time, or perhaps abandoned entirely. One must possess a thorough knowledge of the commerce and general resources of the community, before he can arrive at just conclusions in respect to the amount that may be applied, in a given time, to works of Internal Improvement, without embarrassing other pursuits. Time is an essential element in all calculations relating to what man is capable of performing; limit his action to a day or a year and you limit his power: the crowning act of a great achievement may be performed perhaps in a moment; but in most cases that act is one of a series that have given employment to the time and talents of the individual for many years. No great work could be accomplished in Missouri in one, nor, perhaps, in ten years without the aid of foreign capital; but if we were to commence on a proper system and pursue it steadily, we might, in time, by the use of our own means, achieve all that can reasonably be desired. But are the people of Missouri willing to wait on this slow process, while they labor in competition with producers in other States, who enjoy greater facilities of transportation? We know that there is a respectable portion of our citizens who are prepared to oppose any and every proposition to connect the State, in any way whatever, with works of Internal Improvement; and our principal object in discussing the subject, is to ascertain, if possible, whether a majority of the State entertain similar views.

We believe that the subject has not been fairly discussed. The friends of the measure have not been sufficiently explicit in defining the nature and extent of their plans; and, the opposers assuming that their policy is calculated to involve the State in inextricable embarrassments, the argument between the parties has proceeded without an issue. In justice to themselves and their cause, those who claim assistance from the State, should show that their views are consistent with the principles of equality, and that they ask nothing that may not be granted with safety.

Should it be proposed to construct a railway from one end of the State to the other, all must admit that every part of the community would be benefited, to some extent, by the improvement: and therefore, it would be just that all should bear a portion of its cost. And, in such case, should those more immediately interested in the work subscribe for nine tenths of the stock, would it be unreasonable to require that the State should take the other tenth? She would be bound for nothing beyond the payment of her subscription and the debts of the company which her stock represented; and it would be reasonable to expect that after the improvement was completed the dividends would pay the interest on the amount invested.

This is a fair exposition of the principle which we advocate, and which, we believe, may be adopted with safety to the community.

It is not a sufficient answer to our views to say that, in every case where States have undertaken works of improvement on their own account it has been the cause of embarrassments, and, that the works themselves have been badly managed. We advocate no such policy; nor, should we approve of a proposition to loan the credit of the State to an incorporated company. We simply propose that the State should become a subscriber for stock, on the same terms that citizens or corporations subscribe, and that she subscribe for no more than may be deemed necessary to insure the accomplishment of the work.

We feel persuaded that there is nothing in our proposition that the most cautious individual can object to, with reason; and we cannot think otherwise than that, if this subject were fully and fairly discussed, it would receive the approbation of a majority of the people. For we are unwilling to believe that they are so wedded to old prejudices, so destitute of State pride, or, so regardless of individual interest, as to oppose a measure just in itself, and, withal, calculated to ameliorate their individual and social condition.

We respectfully invite the press, favorable to works of Internal Improvement, to discuss the subject for the consideration of the people; for, we feel assured if it is permitted to slumber until the meeting of the General Assembly, no act giving aid to such works will receive the sanction of that body. For notwithstanding a member of the Legislature might, as an individual, be in favor of the measure, yet he would not feel authorized to vote for it, without knowing the sentiments of his constituents. We have often heard the Legislature of Missouri abused for its neglect of Internal Improvement; but we do not remember to have heard that any specific plan has ever been offered for its consideration. Let those who have been in the

habit of complaining bring forward their plans and discuss them: they cannot expect others to adopt their views without making them known; and if they neglect or refuse to do this they should cease to complain.

ART. II.—WESTERN GEOGRAPHY,

COMPRISING ALL THE TERRITORY WEST OF THE MISSISSIPPI, NORTH OF NEW MEXICO AND EAST OF THE MAIN RIDGE OF THE ROCKY MOUNTAINS.

The Territory comprised within the bounds of the 49th parallel on the North, the Mississippi river on the East, the Arkansas and Red rivers, so far as they formerly constituted the line between the United States and Mexico, on the South, and the Rocky Mountains West, contains about 600,000 square miles. If we add to this the Territory contained within the original limits of Texas, West of Louisiana, the result will be near 630,000 square miles. Of this vast extent of country about 46,050 square miles are comprised within that portion of Louisiana lying west of the Mississippi river; 54,617 within the boundaries of the State of Arkansas; 66,000 within the boundaries of the State of Missouri, and about 45,000 within the boundaries of the State of Iowa; leaving about 420,000 square miles as the extent yet remaining in the great Western Territory. The Territory of Minnesota contains 128,786 square miles, that portion of Texas which we have mentioned, 30,000; and the Territory of Missouri proper about 266,214.

Of the Geography of the States West of the Mississippi it is not our intention to treat at large. The material facts may be found in a variety of other works. We will only sum up a few of the leading features, in order to give completeness to what we design saying in reference to that portion of the West yet unoccupied by civilized men. The soil of all the States is excellent, for the most part. That of Iowa and Missouri rests upon a limestone basis, and is fully equal if not superior to the soil of the States of Kentucky and Tennessee. A portion of the soil of Arkansas has the same foundation, and the remainder, together with nearly the whole of Louisiana, consists of alluvion deposited for ages by the great streams flowing from the West, and is very deep and of wonderful fertility. The State of Iowa is bountifully watered by a multitude of streams, which originate from or expand into a large number of lakes, filled with fishes, and these streams are fringed with fine forest trees, such as the oak, the hickory, the walnut, the ash, the maple,

the elm and the cottonwood. The States of Missouri, Arkansas, and Louisiana are also abundantly supplied with streams and rivulets, garnished with noble timber trees, and abounding in a variety of fishes. In all these States, the highlands between these water courses, expand into open rolling prairies, the soil of which is generally fertile, and producing a variety of rich grasses and succulent shrubs, but in some locations destitute of springs. The only sterile portion of land within the States is that which is intersected by the main chain of the Ozark mountains and their spurs, which take their rise near the Southwest corner of Arkansas, traverse the Western portion of that State, and the Southern portion of the State of Missouri, at an elevation of from 500 to 1,500 feet above the level of the Gulf, with a general bearing Northeast, until they break into spurs and knobs along the highlands which separate the waters of the Missouri from those of the Mississippi. This chain of mountains presents a succession of rugged ridges, precipitous heights, sterile plains and small fertile vallies, where the bleak aspect of the mountains, occasionally tufted with stunted trees and lifeless mosses, exquisitely contrast with the dark and shadowy gorges and the deep green vallies, all of which are more or less illuminated by the sun, and relieved and adorned by dashing cascades and pellucid streams.

The predominant feeling on first entering the vast plain which stretches from the line of the States to the base of the Rocky Mountains, is that of profound melancholy. The immeasurable expanse, apparently without distinct features to attract the eye, or fix the attention, spreads out into one monotonous series of gentle undulations. The eye labors in vain over ridge after ridge, until wearied and heavy, it is lost in dizziness of distance. Suddenly separated from friends and kindred, from the sympathies of social intercourse, the charms of the domestic fire-side, the familiar faces and well known objects of his daily routine, with all the habitudes of mind and action disrupted, and without a solitary object in unison with the feelings, the Pilgrim is alone with his God! The powers of the mind turn inwards, for occupation and relief. Imagination moves upon the troubled waters of memory, until dim and indistinct, the far off scenes of early youth are slowly awakened from their long sleep; gentle and innocent faces of playmates and the hills, and vallies, and streams, the scenes of many a gambol and prank of childhood, and anon the wild energies of youth, and the vaulting ambition of early manhood, with its brilliant hopes and confident anticipations, all array themselves as in a mirror for his contemplation. But the wounds of the spirit will not bear the probe, and egotism herself would soon revolt from self contemplation. Aroused from his reverie, with his senses stimulated and sharpened, the traveler eagerly looks

and listens for new objects of interest, and soon he discovers that the scenes through which he is moving, if entirely different from those of his habitual haunts, are marked by new peculiarities. One by one, the features of the country are developed—at first scarce perceptible—at last distinct and clear, saturating his mind with new beauties, and filling it with original forms. Near him, the surface undulates, as the ocean after a gale, and in the distance, waving blue lines, flanked by *buttes* and knobs, and fringed with trees, mark the windings of many streams. Upon the prairies, the tall rich grasses occasionally cover the surface for miles and miles together, scarce interrupted by any thing else; then the wayfarer will discern bunches and zigzag lines of alder, of hazle and interlaced vines and briars, and again large spots will be enriched by boquets of wild roses, and flashing flowers; filling the air with fragrant odours, and outvieing in grace and beauty the rarest exotics. There the gentle harebell, the carnation rose, the blue violet, the gaudy piony, the modest daizy, the simple butter cup, the fragrant sweet briar, the purple amorpha, and an endless variety of shrubs and flowers, are set as gems upon the deep green verdure of the plains, delighting the eye with their brilliant hues, and enriching the imagination with gorgeous pictures of grace, beauty and grandeur.

The face of the country presents a nearly uniform sucession of ridges and vallies, marked by curved lines, nowhere expanded into dead flats, save in the river bottoms, broken into knobs and bluffs along the streams and along the entire skirt of these bottoms, but never too much so to prevent a profuse growth of grass everywhere. The soil for upwards of two hundred miles westward has nearly the characteristics of that of the adjoining States. From the Arkansas boundary to the cross timbers, the highlands are fertile and beautifully variegated with open prairies and tufts of forest trees and glades, with an occasional intermixture of small spots too flat and marshy for cultivation. The river vallies consist of a deep rich loam, in some places subject to inundations, but for the most part tillable. That portion adjacent to the boundary of the State of Missouri, including the sources of the Neosho, the Verdegris, the Marais de Cygnes and other tributaries of the Osage, and the lower section of the Kansas river, is unparagoned for the fertility of its soil, the value of its timber and forest trees, the beauty of its rolling prairies and broad vallies, the number of its pellucid streams and rivulets, and the salubrity of its climate. Though this first section of the great Western Territory is more scant of timber than the adjoining States, it equals them in fertility and water courses, and surpasses them in the purity of its atmosphere. Traveling due West from Independence, in the State of Missouri, this dark fertile soil ceases at

Sandy Creek, a tributary of the Kansas; moving on the route to Santa Fe, it commences deteriorating at Council Grove near the Neosho river, and becomes more sterile thence to the Arkansas; and farther North it is intersected by the Platte river with its double line of sterile bluffs. It is remarkable that this change of soil is not gradual traveling due West, but sudden and palpable to the most careless observer. At Sandy Creek and at Council Grove the traveler sees the last timber trees, properly so called, until he approaches the spurs of the Rocky Mountains; and at these points it is that the caravans of emigrants and traders usually make a pause to provide themselves with timber to rectify any accident which may occur to their wagons.

South of Platte river this fertile district is contiguous to one directly West of it, where the soil is so intermixed with sand as scarcely to be perceptible, save in its luxuriant grasses and shrubs, which extend several hundred miles towards the mountains, and is again succeeded by a strip of fertile dark soil along the eastern slopes of the mountain chain. The vallies of the Platte, Arkansas, Kansas and Red Rivers, consist generally of rich alluvion, freely interspersed with sand; and the high dividing ridges between those great streams become more sterile, as we recede from the waters, until upon their summits the grasses become stunted, and present a withered and sickly appearance.

North of the Platte river, and adjacent to the first district, and between its North and South forks, the whole soil is largely interspersed with a formation of marl and earthy limestone, so tenacious in some places as to be nearly as much indurated and give the appearance of the yellow soap stone of our streams, but this extensive district is also intersected by ridges (not of desert) but poor soil. It is in this district that what are called *buttes* by the French and *Cerros* by the Spaniards, make their appearance. Custom has, however, enlarged these terms to include what we denominate bluffs and knobs. It is as if the whole surface had suddenly and regularly sank, leaving points and portions of various sizes, and forms from twenty to three hundred feet above the plains. The sides of these *buttes* are nearly perpendicular, and their upper surfaces flat and covered with grass. This is the formation of which the Court House, the Cathedral and the Chimney rocks of the Platte river are composed. These formations are so called because at some miles distance, they bear a rude resemblance to the things from which they are named. Col. Fremont has only mentioned one of the Chimney rocks of which he has given a lithograph. There were two in the summer of 1843. As the tallest of these is one of the grand land-marks of traders and hunters, it should be mentioned that it is (or was) about two hundred feet high.

Between the forks of Platte river, at a place called Goshen's Hole, this formation has been worked into an extraordinary imitation of a massive fortification. At a little distance it strikingly resembles masonry; and it sweeps round an area of two or three hundred yards in diameter in the form of a half moon, terminating in immense bastions with domes and minarets along the whole line of the parapets. This formation juts for some distance across the South fork of the Platte presenting a variety of strange and fantastic forms.

On the head waters of White river there is a space of near thirty miles in diameter broken into *buttes* and towers. Some miles off, the traveler sees gleaming in the sun the outlines of a fairy city. Palaces and walls and fortifications shine and frown upon the surface, and steeples and domes and minarets in innumerable fantastic and beautiful forms shoot up to the height of several hundred feet. It is similar to the optical delusions, described by Parry and Scovesby, in the masses of ice in the polar seas, or the extraordinary phenomena sometimes exhibited by the refraction of light in the atmosphere, portending, in the estimation of the ancients, the fall of thrones and the revolution of empires. But the delusion soon vanishes, and nothing is presented to the eye but cold, dead masses of marl and earthy limestone, worked into picturesque forms by the power and the caprice of the elements. Scattered through this city of clay, we found great numbers of petrefactions on the surface, principally of turtle, some of which were fifteen inches across the back, and the whole body, shell, legs and intestines perfectly hardened into stone. A few wolves' heads may also be found, with a multitude of small shells and molusca. This spot is very celebrated among traders and trappers, not only for its curiosities, but because of its having been a great Indian battle ground, time out of mind. It is also a place of refuge and security for traders, when pursued by hostile bands of Indians. Once fairly within it, and the pursuer had as well attempt to thread the Egyptian labyrinth, such a multitude of narrow and winding passages and strange and curious caverns does it contain. The French traders have given it the name of "*Le Mauvaise Terre.*" The fugitive is amply supplied, too, with good water, preserved in a number of great natural reservoirs. It is impossible that such a soil can be otherwise than very productive.

Scattered all over these western savannahs may be seen immense masses of rock, distributed by the subsiding waters of the last great flood, many of them several hundred tons in weight, and only imbedded in the soil to the extent of their specific gravity. Towards the western section also, trees of the largest size have been hurled from the mountains by torna-

does and hurricanes, and deposited in the plains hundreds of miles from the spot of their nativity.

The district between the Missouri river and the forty-ninth parallel, and west of the territory of Iowa, is a succession of rolling prairies, the soil of which is tolerably fertile, though rather dry and too freely intermixed with sand. They support a thick, grassy sward, which yields an abundant pasture to innumerable herds of bison and other animals; and the grizzly bear, the fiercest of all the North American land animals, has selected this as almost the only prairie district into which he will venture from the mountain fastnesses.

The territory of Minnesota is a beautiful and very fertile district of country, strongly contrasted in its conformation with other sections of the United States. It is neither mountainous nor hilly, nor is it a dead flat. There are hillocks, ridges and uplands, but they are characterized by a longitudinal and horizontal, instead of a vertical projection. Without exhibiting either marked and mountainous features, or dead, sterile vallies, the surface is sufficiently variegated with eminences and depressions, and contrasted in curving ridges and undulating plains, decorated with limpid lakes and streams to give it an aspect of deep interest. The soil, too, is rich, and the waters and woods so disposed as to render it one of the most desirable residences in the world, as well as one of the most beautiful and picturesque.

The basin of the Upper Mississippi is separated from that of the Missouri by an elevated plain, the appearance of which, as seen from a distance on the east or west side, has suggested to the early traders the name of the *Coteau des Prairies*. It would probably be more correct to designate it as a Plateaux, because its aspect suggests to the mind an idea different from that of *a plain*, though it includes it. The northern extremity of this plateaux is in latitude forty-six degrees. From thence it descends and expands to latitude forty-three degrees; after which, it loses its distinctive elevation above the adjacent plains. Its length is about two hundred miles, and its general direction from north north-west to south south-east. The head of this plateaux, called *Tete du Coteau* by the French, is about fourteen miles across. Its elevation above the ocean, is one thousand nine hundred and sixteen feet. As it stretches southward, its surface becomes undulating, breaking into dividing ridges, which separate the waters of the St. Peters and the Mississippi from those of the Missouri. At the forty-fourth degree its breadth is about forty miles, and its elevation is reduced to one thousand four hundred and fifty feet.

The plain which expands from the northern extremity of this Plateaux, is a most beautiful and picturesque tract, diversified with hills and valleys and woodlands, and intersected with

crystal streams and silvery lakes. This is the most elevated spot between the Gulf of Mexico and Hudson's Bay. From its summit the prospect is magnificent; extending over the broad valley of the Red river of the north, the forest-crowned summits of the *Hauteurs de Terres* at the sources of the Mississippi, and the granite valley of the St. Peters. This Plateaux is thickly timbered at its head, and for some distance southward; but its groves become rarer as we descend, until the whole elevation melts into the lower plains. In the head of the great Plateaux, some tributaries of the Red river, the St. Peters and the Jacques river, take their rise, and flow respectively north, south, and south-east.

Another of these great Plateaux is that which is interposed between the sources of the St. Peters river and those of the Mississippi, and which has received the name of the *Coteau du grand bois*, because of the dense forests which crown its summits. It stretches in a serpentine course from the vicinity of the sources of the Red river, to the head of the Witikantu, a tributary of the St. Peters.

A third vast Plateaux has been named by Mr. Niccolet the *Plateau du Coteau du Missouri*, and is interposed between the Jacques and Missouri rivers. It is a rolling prairie, about five hundred feet above the waters of the Missouri, the soil of which is a mixture of sand and gravel, covered with a short, sweet-scented verdure. It expands from the narrow surface between the rivers near the junction, indefinitely north and north-west.

The territory of Iowa and Minnesota is sprinkled all over with groups and chains of lakes, united by streams and rivulets, all of which finally unite in the formation of its great rivers. Within the whole territory there are probably not less than three hundred of these lakes. The region between the head branches of the Des Moines and the river St. Peters is so thickly strown with them that Mr. Niccolet, with admirable taste, has bestowed upon it the name of the Undine region, from an exquisite German tale so designated. All of these lakes are literally crowded with fine fish. Only one of them is tainted with animal deposits. This is the Mini-Wakan, or Devil's lake, situated under the forty-eighth parallel, near the sources of the Shayenne Oju river. It is irregularly formed, with an extension varying from twenty to forty miles, and studded with islands. Its waters are too brackish to be drank, except by horses and cattle. After evaporating a quantity of the water, an analysis of the residuum exhibits a mixture of sulphate and hydrochlorates of soda and magnesia; and the soil in the vicinity of this lake is frequently found covered with saline efflorescences.

The principal rivers of this territory are the Mississippi, on its eastern boundary, the Des Moines, (or Mo-in-go-na,) the St. Peters, the Red river, the Little Sioux, and the Jacques.

The falls of St. Anthony, immediately above the mouth of the St. Peters, is the head of steam navigation upon the Mississippi. It is supposed by Mr. Niccolet that but a little expenditure would render the St. Peters navigable for steamboats some distance above its mouth.*

The course of the Des Moines is not less than four hundred miles. It is navigable for steamboats a distance of 150 miles. and for flatboats nearly up to its source. The name *Moingona* is a corruption of the Algonquin term *Mikonang* (at the road.) The river is called *In-yan-sha-sha-watpa* by the Dahcotah's, which means Redstone river. Its source is at an elevation of 1580 feet above the Gulf, and its mouth 400 feet. The *In-yan-yanke*, or little Sioux river is a small stream heading in the *Coteau du Prarie*, not far from the course of the Des Moines. It is a short stream, and only navigated by canoes.

The Tchan-kasn-data, or Big Sioux, is a stream of much importance, which rises from a group of Lakes, in the head of the Coteau du Prairie, and flows nearly due south to the Missouri, a distance of 350 miles. This is the stream mistaken by Capt. Carver for the Missouri. It is navigable for pirogues and canoes.

The Wassechr, or Vermillion river, is only sixty miles long, and issues into the Missouri between the Great Sioux and Jacques rivers.

Tchan-san-sar or Jacques river, rises near the salt water region, in the vicinity of the Devils Lake, and flows a little east of south into the Missouri, a distance of over 450 miles. It is navigable for a craft of considerable size.

He who casts his eye over the broad territory south of the Missouri, and west of the States, will discover that it is deficient in streams of any size, and he who has traveled over it will inform him that the tributaries of the large streams are few in number, and that springs and rivulets are of much rarer occurrence than within the adjoining States. The wanderer is seldom without water of some kind more than one or two days, but he is frequently compelled to content himself with a draught from small ponds and *slews*. Intervals of many miles between fountains and brooks are of frequent occurrence. This spar-

* "The name of St. Peters, (the St. Pierre of the French,) it appears, has been unanimously given to the spot at the mouth of the river, but whence the name, is not known. Father Hennepin who was the first to visit the Falls of St. Anthony in 1680 makes no mention of this river; but his book is written very confusedly, and as he gives no details of his route, perhaps had no occasion to visit it, and was also molested by the Sioux, the omission is explicable. On the other hand, Lesueur in his Journal of his third journey in 1700, names the St. Peters as familiarly known and acknowledged by Traders. As for my part I have no hesitation in assigning its origin to a Canadian by the name of Dr. St. Pierre, who resided for a long time therabouts. Carver, in refering to the supposed fortification which he visited below Lake Pepin, mentions a Dr. St. Pierre, but this was 64 years after the travel of Lesueur. NICCOLET."

sity of streams is no doubt attributable to the rapid evaporation on these elevated plains, which rise gradually from one thousand to six thousand feet above the Mexican Gulf. It is also remarkably deficient in "water privileges." The conformation of the soil bordering the streams, is unfavorable to the construction of locks and dams, and there are few places where water power could be obtained, without labor and expense disproportionate to the benefits to be anticipated. From our own observation, as well as from information derived from many others of excellent practical sense, we have no doubt that "wind-mills" might be constructed almost any where in this territory, which would run as long a period, and with as much certainty, as water mills do within the States. Springs are more abundant in the vicinity of the mountains, and within their spurs rapid torrents rush through the fissures of the rocks, or leap in snow-white cascades from their summits.

The Missouri river runs a course of over three thousand miles from the point of junction of its three head streams, the Gallatin, the Madison, and the Jefferson. It has been navigated with steam boats about one hundred miles above the mouth of the Yellow Stone.

From the mouth of the Missouri, for the first five hundred miles, the river flows through a valley, varying in width from three to six miles, its average width being about three. This valley is bordered by a ridge of highlands on each side, in some places seeming to be continuous, and at others cut into segments and bluffs. The valley has a depth of one hundred and fifty feet below these highlands, and the stream winds through it, sometimes striking the north, and at others the south bluffs. The whole of the river valley is plainly discernible as an alluvial deposit. From the summit of the highlands, the surface slowly ascends towards the plains on the north and the south, and probably at no great distance these plains are elevated three hundred feet above the valley. Major Long made an erroneous guess that the soil would be found to be confined to the vicinity of the river. The soil is in general good indefinitely north, and would have been so indefinitely south, but for the jutting spurs of the Ozark Mountains. The reader must not understand that the highlands along this river invariably appear continuous to the eye. They do so appear as high as the Chariton river. At this point they seem to recede, and again approach near the mouth of Grand river; a little above this again recede, and again approach, and so on at intervals to the mouth of the Kansas. From the Kansas to the Nodaway, the highlands are continuous, and generally about eight miles asunder. From the Nodaway, the northern hills disappear as the river is ascended, except at occasional intervals, and they again approach some miles above the Platte. On the south side,

the highlands skirt the stream close, as high up as the Council Bluffs. From about twenty-five miles above the Platte, the northern highlands again recede, and do not again appear until the mouth of Floyd's river is reached. The highlands upon the south also recede above Council Bluffs, and again re-appear about two hundred miles higher up. The portions of country where the hills recede from the river, is usually more open along the river, and this is especially the case above the Platte river.

The northern hills again recede above Floyd's river, and only appear at long intervals, until the river is ascended above the mouth of Jacques river. The highlands on the south disappear a little above the Omaha river, and do not again appear until in the vicinity of the Calumet bluffs; and from this point onwards for one thousand miles, they stretch along the shore with but little variation. At the mouth of Jacques river, the valley of the Missouri commences narrowing, and thence to the mountains the highlands north and south press more closely upon the streams. The river valley continues, however, though much confined, to the mouth of Muscle-shell river. Above that point it is scarce perceptible, so closely do the hills hug the stream.

The highlands of the Missouri vary in height as we ascend. From Wood river, they slowly ascend, until we reach the Osage; then they again become depressed for fifty miles; and again rise and continue elevated to the Mandan village, when they slowly sink until we reach the Muscle-shell. From this point onward they slowly elevate themselves from three to five hundred feet.

The lower portions of the stream are thickly bordered by continuous groves of forest and timber trees. Above the mouth of the Platte these groves become thinner, and sometimes the river flows for miles through an open space. The soil of the river bottom is a deep rich alluvion, and that of the highlands, for many miles north and south, is very fertile. We incline to the opinion that this rich soil extends much farther from the river than Major Long supposed; and we *know* that there is a much larger surface of it than was estimated by Lewis and Clarke.

It is a maxim of the traders, that above the great bend the snags disappear. This notion they have taken up, because they never descend the river, except when it is swelled. The author can testify, from having descended it in extreme low water, that it is literally bristling with snags from near the mouth of the Yellow Stone to the State line, so much so that the navigation was dangerous in a light canoe.

The spring freshet usually occurs about the first of June, and lasts some weeks. Except during this freshet, the navi-

gation of it downwards with steamboats is nearly impossible above the Council Bluffs, and its ascent in them becomes more difficult as the season advances. The author met a keel boat at the mouth of the *L'Eauqui Court*, on the 20th September, and a very small steamboat at the mouth of the Cheyenne, a little earlier, but the labor and difficulty was so great that neither of them could make over twenty miles per day, and the latter we believe was compelled to lie by a few days subsequently. The owners of the keel boats, (Messrs. Sebill & Co.) originally designed ascending the Cheyenne river, their goods being destined for the north fork of Platte river. We never heard the result, but from our knowledge of the Cheyenne, we have no doubt its ascent was found to be impracticable. In our descent of the Missouri, in a twelve foot canoe, in the month of October, we were cast upon bars daily, and compelled to get out and drag our boats into the current again. The river was then rather a succession of long dead ponds than a continuous stream, connected by necks of narrow and rapid currents. From its mouth upwards, it becomes more and more serpentine, until after passing Platte river the traveler will find himself but rarely in a direct course towards his destination.

It is not correct, as has been stated, that the river derives its turbid waters altogether from the Platte. Some of its tributaries wind through the formation of marl and earthy limestone before alluded to. White river, for example, presents, when slightly swelled, the appearance of thick yellow cream, and is at all times more or less saturated with earthy deposit. Moreover, the banks of the Missouri are continually falling in, and its islands and bars are in a perpetual course of destruction and reformation. But the river is slowly deepening its channel. We know of one place within the State of Missouri, where thirty years since the Indians were in the habit of wading the river, where now steamboats float with ease.

The specific gravity of the Missouri, at the mouth of the Kansas, is seventy-eight, whilst that of the Kansas is only seventy-two degrees, thus showing a much heavier intermixture of sand and earth in the former. This discovery of Lewis and Clarke was subsequently confirmed by Doctor James, of Long's party. The fall of the Mississippi from St. Peters, and the fall of the Missouri from Fort Pierre to the confluence of the two rivers, are in the ratio of forty-five to eighty-five; that is to say, the average rapidity of the Missouri is nearly twice that of the Mississippi. Long's party estimated the current of the Missouri, at the mouth of the Platte, to be at the rate of one fathom per second; in very low water, it rushes through the narrow banks between its ponds, at the rate of twelve fathoms per second, and when the spring rise is at its maximum, it moves at the rate of 720 feet per minute. The

celerity of the Amazon is about equal to that of the Mississippi, and that of the Oronoco much exceeds even the Missouri, descending thirteen inches to the mile.*

The difference of elevation of the valleys of the Missouri and the Mississippi has been determined. The level of the Missouri at Council Bluffs is one thousand and twenty-three feet above the Mexican Gulf; that of the Mississippi at Rock Island, in the same latitude, is only five hundred and twenty-eight feet. Again, at Fort Pierre, in latitude forty-four degrees twenty-four minutes, the elevation is one thousand and fifty-six feet, whilst at the lower end of lake Pepin, in the same latitude, the elevation is only seven hundred feet above the Gulf.

We have ascertained, for the most part by our own observation, that there are in the Missouri river no less than two hundred and ten islands between the mouth of the Yellow Stone and that of the Missouri, besides sand bars too numerous for computation. Of these islands near one-half are timbered with forest trees, principally the plane tree and the cottonwood below the Platte, and gradually intermixing with shrubs peculiar to a higher region as the river is ascended, until finally the predominating growth is stunted cedar and pine. A large number of them are thickly overgrown with swamp willow of several varieties. These facts alone demonstrate the uncertain and shifting character of the stream.

We have also ascertained that the number of streams issuing into this river, from its mouth to the Yellow Stone, is upwards of two hundred. Of these, very few are of any size or length. Those best adapted to navigation are within the boundary of the State, and within the same boundary they are more numerous than they are above the Platte river, until the eastern slope of the Mountains is reached, and here a multitude of rapid rivulets, flowing from the cardinal points, hurry to unite themselves to its majestic current.

Before concluding our remarks upon the Missouri river, we will direct the attention of the reader to some facts of vast importance in estimating the value of water courses for the purposes of commerce, and if he will bear these facts in mind, they will materially assist him in summing up the character of all the streams mentioned in this article. The rate at which the current of this river moves has been already given from Lewis and Clark and the party of Major Long. Now it must be remembered that this rate will vary according to the stage of

*It is to be remarked, that the head streams of the Missouri are clear, and that it slowly acquires its turbid character in its descent, being facilitated in the acquisition by its tributaries. It is also remarkable, that the sands and earths are precipitated by intense cold, and that during the severe weather of winter, its waters are well nigh as pure as those of western streams generally.

the water. If the river was constantly flooded we might make the calculation with some certainty, but during the season of low water, if the experiment be tried, the current will be found to vary with the locality. In the narrow necks which unite the long ponds, it is very swift, whilst in the ponds themselves the rate is varied by many circumstances. From the mouth of the Kansas to the mouth of the river, the fall is two hundred and fifty-eight feet, the distance four hundred miles, and the descent per mile one foot near five and a half inches, provided it be admitted that the bed of the river continually descends without swell or depression. A river which descends continually and regularly, may be very difficult of ascent, whilst one which descends by a succession of cataracts may be very easy of ascent between its falls. Hence it is that in many instances rivers which have their sources elevated only five hundred feet above a given level, may have a current double as swift as those which have their sources at double or treble the altitude.

Of the tributaries of the Missouri, within the State boundary, it is unnecessary to say much. Only two of them, the Osage and the Grand river, have been penetrated any considerable distance by steamboats. On the former, boats occasionally ascend as high as Warsaw, and on the latter as high as Chillicothe; but this can only be done by small boats during the spring freshet.

Taking its rise in the North Park in the Rocky mountains, in latitude forty degrees and longitude one hundred and six degrees forty minutes, the Platte river winds through the mountains north and then east, over rapids and cataracts, until it bursts through the chain and flows rapidly east to a point in latitude forty-one degrees and longitude one hundred degrees and fifty minutes, where it receives the South fork, which takes its rise in the vicinity of the Arkansas and flows in a north-east direction to its mouth. Immediately below the junction, the stream is five thousand three hundred and fifty feet wide, and flows on with an average width of three-fourths of a mile, to its mouth in latitude forty-one degrees and longitude about ninety-five degrees. The bed of the river has many islands well timbered and possessing an excellent soil, as does also the bottom lands. The bottoms are nearly destitute of timber. The river is so shallow, and so capricious in its currents and bars, that it is navigated with the greatest difficulty and hazard by the light boats of the fur traders, and may be set down as altogether worthless in a commercial point of view. Its waters are at all times turbid with fine sand and clay. Two great forks, the Republican and Smoky Hill, which have their sources within the spurs of the mountains, unite in latitude thirty-nine degrees and longitude ninety-six and a half degrees to form the

Kansas river, from whence it flows several hundred miles eastward to its junction with the Missouri in latitude thirty-nine degrees and longitude ninety-four degrees, through a well timbered valley of unparagoned fertility. Like the Platte, it is too shallow and swift to be navigated over one hundred miles in security and certainty.

The Yellow Stone river, rising amid the peaks of the great mountain chains, flows north-east to its junction with the Missouri. This stream, with its tributaries, waters a large and fertile valley, and is navigable for steamboats eighty miles, and for other craft more than two hundred and fifty miles; and here we may anticipate the birth and growth of a considerable colony.

The other tributaries of the Missouri are many of them navigable for canoes and batteaux for some distance above their mouths, but none of them will float boats of much size.

The White river of Arkansas is navigable for steamboats near four hundred miles during its freshets, and the Big Black also for a considerable distance.

Rising within the spurs of the mountains, the Arkansas river leaves them with a breadth of fifty yards, and widening as it flows onward, to four hundred yards, and sometimes one mile, pours its tribute into the Mississippi in latitude thirty-one degrees thirty minutes. Its upper portion is densely timbered, but about one hundred miles east of the mountains every trace of trees is lost, and it flows on several hundred miles through a vast expanse of undulating plains, and again penetrates fine forests near the western line of the State. It is navigable for steamboats as high as the Neosho, a distance of six hundred miles; above this point the navigation is, and must continue bad, even for pirogues. The Washita, one of its tributaries, is also navigable for many miles. The Canadian, another of its branches, rises at the base of the Rocky mountains, and flows through a broad valley of land bounded by bluffs of five hundred feet high, a distance of one thousand miles, to its confluence with the Arkansas about five hundred and fifty miles above its mouth. Two hundred miles of its lower portion flows through a valley of unbounded fertility, shrouded in rich masses of trees, shrubs and flowers. Its upper portion is over arid deserts which, for the greater proportion of the year, drink up the whole of its waters, leaving its channel entirely dry.

The Red river rises east of Santa Fe, in the mountain spurs, and flows south-eastwardly to its mouth in latitude thirty-one degrees. This river is navigable about five hundred miles, to the Great Raft. In very high water small boats pass several hundred miles above the Raft. Its name is derived from the red argillaceous earth it holds in solution.

The waters of this section hold in solution a proportion of

common salt and sulphate of magnesia, which, in many instances, render them too brackish and bitter for use; and all of these streams are more or less colored during freshets with red earth, or soft sandstones. Red river thus derives its name.

The author was informed by Mr. Andrew Dripps, (formerly an Indian agent, and a very estimable gentleman,) that he has been repeatedly assured by old trappers, at a period when he was one himself, that the head stream of Yellow Stone river, and the head stream of Lewis's Fork of the Columbia, both have their sources in a lake on the summit of the main chain of the Rocky Mountains. The account states that the lake is near two miles in length from north to south and very narrow, and that there is a current in it to its extremity, where an immense mass of granite divides its waters nearly equally, one portion precipitating itself from the eastern and the other from the western side of the summit. If this account prove correct, (and it is tolerably well attested,) what a theme for the Poet! Moore has given us a sweet song upon the "Meeting of the Waters," but who, since the death of Byron, can sing such a parting of the waters as this?

A fact nearly similar is stated by Mr. Ross Cox and others. "At one, P. M.," says he, "we arrived at two small lakes, between which we encamped. They are only a few hundred feet each in circumference, *and the distance between them does not exceed twenty-five or thirty feet.* From them two rivers take their rise, which pursue different courses and fall into separate oceans—the first into the North Pacific, while the other, a branch of the Attabasca, unites finally with the Unjiga and Mackenzie, and issues into the Arctic sea." Lewis and Clarke found the source of the Missouri within a mile of the waters of the Clarke; Fremont, those of the Sweet Water within a mile of those of Green river; and the sources of the Arkansas and Platte both *interlock* with branches of Grand river, a tributary of the Colorado of the West.

Lakes, lagoons, and bayous, abound in the delta of the Mississippi, and over the great alluvial formation extending six or eight hundred miles up the Arkansas and Red rivers, but we know of no lakes south of the Missouri and west of the states, in the great western territory.

An error committed by Major Long, in consequence of relying too implicitly on the representations of the men of the mountains, who delight in magnifying the wonders of their wild home, deserves special correction, inasmuch as he was officially engaged in the examination of the country, and consequently has been looked to with greater confidence for correct statements of fact, both in Europe and America. This error is quoted so recently by M. de Tocqueville, in his great work, that we are warranted in concluding that it is yet the

prevalent opinion among men of science. The statement is, that from a line drawn parallel with the twentieth degree of longitude, from the Red river in the south to the Platte northward, and from thence indefinitely north, the whole country is "unfit for cultivation, and of course uninhabitable by a people depending upon agriculture for their subsistence." It so happened that Major Long, in following the line of the Platte river to its forks, and thence across and along the south fork of it, passed over the only remarkably sterile district in the territory. The truth is, that many considerable exceptions must be made to this sweeping denunciation. From the forks of Platte westward, there is a broad strip of marl and earthy limestone, extending from the south fork north to the Missouri. North of the Missouri the whole country is fertile, back to the mountains. Along the eastern slope of the mountains, as far south as New Mexico, there is in general a broad bench of fine soil. Within the mountain chain, large and fertile valleys occur. The basin of the Yellow Stone is a very rich district. Large spots of good soil occur between the Platte and the Missouri. And the river bottoms are all fertile near their sources, and become much more so as they are descended. On these facts the author *cannot* be mistaken. They are the fruit of personal observation, and of inquiries directed to intelligent and competent sources. Entire deserts never occur, save in a few narrow strips along the Arkansas and Canadian rivers. South of the Platte and east of its forks, cultivation will be confined to the river bottoms, whilst the highlands will afford pasturage for flocks. Sparsity of timber constitutes the greatest barrier to settlement.

Scattered throughout this territory are a great number of insulated table lands or plateaux. They rise from six to eight hundred feet above the common level, and are frequently surrounded by rugged slopes and abrupt precipices, rendering their summits nearly inaccessible. A number of them are in this way perfectly insulated; but others subside into the plains below by gentle declivities from their summits to their bases, on one or other side of the eminence. These tracts are more numerous, but less extensive, near the mountains. These plateaux have been likened, without reason, to the *steppes* of Asia. They are called *mesas* by the Mexicans. The largest of them is known as *El Llano Escatado*, which stretches north to the Canadian, east to the boundary of Louisiana, including the heads of the false Washita and other streams, and expands southward to the sources of the Trinity, Brazos, and Colorado, and westward to the Rio Pecos—embracing an area of about thirty thousand square miles. In places where the brows of these mesas approach a stream closely on both sides, the deep chasms or ravines thus formed are called *canones* by the Mex-

icans, and this term has been extended to include the narrow gorges in mountains, and fissures of rocks through which streams are frequently found rushing in volcanic regions. Even in the open plains the small streams frequently cut chasms which, although only a few feet in width, may sometimes be seen from fifty to one hundred feet in depth.

The stupendous chain of the Rocky Mountains which bounds this vast territory on the west, has been distinguished by a number of appellations, such as the Shining mountains, the Mexican, the Andes, the Chippewayan, &c. Upon the whole, the Mexican portion should be designated as the Anahuac; that portion succeeding, and extending to the forty-ninth parallel, the Rocky Mountains; and the portion north of this line, as the Chippewayan. These mountains are arranged in a west north-west and south south-east direction, and rise abruptly from the plain, towering into ridges and peaks of great height, becoming visible at a distance of one hundred miles. James's Peak is eight thousand five hundred feet above the common level. Fremont's Peak, on Wind river, is thirteen thousand five hundred and seventy feet above the Mexican Gulf, and is undoubtedly the highest peak of the whole chain. The more elevated portion of these mountains are covered with perpetual snow, presenting at great distances a very brilliant aspect. Here nature has undergone her wildest and deepest throes, leaving enormous masses of rugged primitive rock clad in a scattering growth of scrubby pines, oak, cedar, furze, and artimisia.

Formerly this range was deemed impassable, but Mackenzie succeeded in passing it in 1793, at the head of Peace river; Lewis and Clarke, in 1806, found the *North Pass* near the head of the Missouri, a depression offering a good wagon road; and the *South Pass*, accurately described by Col. Fremont, has been known to trappers since the year 1809. Besides these passes, there is a more difficult one at the head of the Saskatchawan river; another, followed by Col. Fremont on his return from California, in 1844; another, by which mule caravans travel from Santa Fe to Monterey; another, in New Mexico, across the Gila river; and several others, which the old trappers have passed with great hazard.

With respect to the climate of the West, the author cannot speak with scientific precision. Many more meterological observations must be made before this can be done; but it is quite easy to give a popula , intelligible, and practical account of it. This whole region is exposed to the influence of the west and north-west winds, refrigerated in their passage over the broad and frozen district of the Rocky Mountains, and rushing down, unimpeded, across the naked plains, quite to the Atlantic coast. Volney believed the temperature west of

the Alleghanies to be much milder than east of them; but subsequent observation has not confirmed his conjecture. The extremes of heat and cold are both greater at the Council Bluffs than at Germantown in Pennsylvania. Extending, as this territory does, through many degrees of latitude and longitude, it may be expected to afford a considerable variety of climate, and this is sufficiently verified by the commencement and progress of the seasons and of annual vegetation. The change is also marked by certain peculiarities in the vegetable products. Vegetation commences at least one month earlier in Louisiana than in Missouri, and some weeks later than the latter in Iowa. Again, it commences two weeks earlier upon the Mississippi than five hundred miles west of it, and three weeks later still at the base of the mountains. The Spanish moss disappears north of the thirty-third degree of latitude. Cotton and indigo cannot be cultivated above thirty-six degrees; the cane brake is never found north of thirty-six and a half degrees, nor the Osage orange above the Arkansas river. Maize reaches its maximum in Missouri, and dwindles from thence to the forty-ninth parallel, where it is of inferior growth. The shrubs and flowers also vary with the progress north and south or east and west. In 1842 the thermometer ranged at an average of sixty-three degrees at sunrise and eighty-one degrees at noon, during the month of June, at St. Louis; whilst, during the same month, Col. Fremont, in passing from the mouth of the Kansas, four hundred miles up its valley, found it at an average of fifty-eight degrees at sunrise and seventy-nine degrees at noon. In 1818 Doctor James says the thermometer stood, during the month of June, at seventy-two degrees to ninety-three degrees at the Washita Springs; and in Iowa, Mr. Niccolet in 1836 found the temperature, at the same season, about seven degrees colder than at St. Louis. The author has seen hail on the 17th July, near the forks of the Platte, and snow at the Arriccara Village, on the 15th September; and this is its usual period of appearance there. It appears later, as the river is descended, until at the State line its usual period of appearance is on the first of November. In the spring, floods of rain descend along the whole course of the Kansas and Platte rivers, washing the bluffs with torrents, and covering the bottoms with deep sheets of water. These rains are not so frequent or copious on the Missouri or Arkansas. The air is kept in perpetual agitation by the winds. The worst of these are from the north and east in winter, bringing terrible snows with them, and the best from the west and south in summer, bringing genial rains. Electrical phenomena increase in frequency and brilliancy as we ascend to the Rocky mountains, sometimes covering the plains with a blinding sheet of quivering fire, and again flashing, spangling, and

shooting into curves and angles of red, blue and silver hues, accompanied with volleys and peals of thunder, under which the very earth quakes and trembles. But on the plains we miss the long, varied and solemn reverberations slowly subsiding in the distance. The undulations of the atmosphere spread, unimpeded, in a uniform series of circles.

Science has so far failed to penetrate with certainty the causes of the existence of the immense prairies of the West. Long, Wells, and others of ability, have satisfied themselves that they are attributable to the annual burnings of the Indians. To this conjecture, the answer is obvious and conclusive. In the States of Ohio, Indiana, Illinois, &c., the prairies are much smaller than in the territory west of the Missouri and Mississippi; and yet the antiquities which denote a former occupation of these States, are much more numerous than in the latter territory. South of the Missouri, and West of the line of the States, there is not a solitary earthen-work, or ancient mound or fortification to evidence the former occupancy of the country. Would this be the fact if it had been occupied at a period coeval with the origin of the antiquities of those States? The causes conjectured are not then sufficient to account for the fact. The vast prairies of the West are ancient floors of the ocean, as a profusion of marine remains amply testify. When it abandoned them, they were of course bare of plants, and must have been slowly supplied by the gramination of plants on contiguous areas, and the distribution of the seed by the winds and waters. In this manner these prairies might long since have been covered with trees as well as germina, if the progress of these natural causes had not been arrested by the introduction of buffaloes and Indians. It may therefore be concluded that these prairies do not owe their existence to the destruction of timber shoots by the animals, and the annual burnings of the Indians, but that they are indebted for their preservation chiefly to these facts. These causes would no doubt be greatly assisted by the nakedness of the soil, and the free admission of the rays of the sun. Forests attract rain, and impede evaporation; but the reflection from the surface of vast plains, scatters the clouds and vapors driven over them by the winds. If the Indians and animals were withdrawn, the skirts of timber would slowly enlarge, and as they enlarged, they would overcome the excessive evaporation by shading the surface, and although the greatest elevations might perhaps be left bare, and the timber every where somewhat smaller than in lower situations, yet the forests would outmeasure the prairies, and the latter would become the exception instead of the rule. This has been the result along the western border of the States, wherever these impediments to germination have been withdrawn.

Mineral springs are profusely distributed over this great territory, especially within the localities where metalic ores prevail, and within the mountain regions. Lewis and Clarke notice the following along the line of the Missouri: 180 miles above its mouth, on Maintou Creek, several salt springs, and a number more higher up—a spring of salts, &c., near White river—and several others still higher up. In Saline county, Missouri, salt water is very abundant. The like is true as respects many portions of Iowa and Arkansas. Around Mini-Wakan lake, in Iowa territory, saline efflorescences are abundant. On the south bank of Platte river there is a copious spring of salt water, and saline efflorescences cover the surface of large portions of the bottoms as with hoar frost. A large district along the head waters of White and Running-water rivers is saturated with salt, and oozing springs of it are freely distributed over it. The Grand Saline, near the Neosho river, 40 miles above its mouth, consists of a number of springs, affording a snfficiency of strong water to justify extensive works. There are a number of *Salina's*, or mines of pure salt. The most northern is fifty miles west of the Missouri, and forty south of the Platte, where the Ottoes and other Indians procure salt. This mine is inexhaustible. Capt Nathan Boon, in 1843, during a journey between the Canadian and upper Arkansas, found efflorescent salt in many places. On the red fork he remarks in his journal: "The whole cove on the right of the two forks of the river, appears to be one immense spring of salt water, so much concentrated that as soon as it reaches the point of breaking forth, it begins depositing its salt. In this way a large crust or rock was found all over the bottom for 160 acres. Digging through the sand for a few inches any where, we could find the solid salt, so hard that there was no means in our power of getting up a block of it. We broke our mattock in the attempt. In many places through this rock salt crust the water boiled up as clear as crystal, but so salt that our hands, after being immersed and suffered to dry, became as white as snow. Thrusting the arm down into these holes, they appeared to be walled with salt as far down as one could reach. The cliffs which overhang this place are composed of red clay and gypsum." Mr. Sibley visited this same plain over thirty years since, and describes the salt as being then even more abundant along the sources of the Canadian and Arkansas. Major Long found a copious quantity of efflorescences and impregnations of salt, and the author has ascertained the existence of it in a number of places along and within the mountains.

The rambler over the plains who is not annoyed with wagons or goods, or troubled with a tent, with only a blanket for his bed, and his saddle for a pillow, has his imagination night after

night put upon the wing. Having nothing to do, he usually lies down as soon as

"Night stretches forth her leaden sceptre,"

and then his eyes are turned to the broad deep blue expanse, where not a dark line or spot is visible, filled with the blended light of every star whose rays have reached us during the profound six thousand years. And he may trace the light filmy clouds, careering through the heavens, curling into unimagined forms of beauty, hanging in graceful folds like a veil of gossamer; streaking the distant horizon with varied and flickering colors, or rising in masses like the outlines of far-off mountains, whose summits are crowned with eternal snow. How profound is his wonder, that amid the busy and grovelling scenes of toil and business, his mind has so seldom been elevated to the contemplation of things so grand and magnificent; that their sizes, their motions, their distances, and the vast and various circles in which they move, should have occupied so little of his attention, and been so seldom appealed to, to elevate his feelings, and animate his gratitude to their divine author. He discovers how futile was the fancy of that poet who complained—

"What lovely visions yield their place"

when science has withdrawn from "the face of creation the veil of enchantment." For the hand of science can never withdraw that veil, but only raises it here, and there to open new fields of beauty for the imagination to revel in, or furnish it with more imposing images of omnipotent power.

The features of the prairie after a time become somewhat wearisome. They are so indefinitely marked, and there is such a constant succession of objects bearing a general resemblance, that the mind tires of the contemplation. The objects, though interesting at first, become too familiar. There is not enough of bold outline, and striking contrast. The forms are too regular and uniform, and the shades blend so imperceptibly that the different portions of the picture are not sufficiently distinct. The same lights and shadows illuminate and darken every locality. But a rich compensation awaits him who has the courage and perseverance to encounter the dangers and privations of the route, when he approaches the mountains. At the distance of sixty miles their snow clad peaks make their appearance above the horizon, dim, white, and indistinct, like a long line of icebergs seen by moonlight. Day after day their forms seem to ascend higher and higher, and their outlines become more irregular and ragged, and at their base a long dark stripe stretches throughout their course, widening and widening, until it seems like a dark and fathomless gulf, separating the world of reality from the bright world of imagination beyond. Then this dark void slowly dissolves, and out of its shadows a long line of bleak, sterile, ferruginous *buttes* and rocks, whose

soilless surfaces refuse sustenance, save to a few scattered stunted pines, and lifeless mosses, emerge to the view. These are the Black Hills, the outer skirts of which are diminutive knobs and cones, which increase in magnitude, rising successively to the height of several thousand feet, until united to the great chain of the Rocky Mountains. It is as if the imprisoned fires generated for ages had at last moved the superincumbent masses, swelling them into knobs and *buttes* at the outer circumference, and increasing in power as its activity concentrated, until the hills were pressed up to the clouds, and the mountains "from their deep foundations torn," shattered and riven, were thrown into the upper air, and had fallen into enormous piles of unshapen granite. Into the valleys, hollows and ravines, the *detritus* of ages has accumnlated, and the genial and generative powers of nature have created scenes of primeval beauty, reminding us of the prophetic new order of creation which is to spring out of the chaotic elements of a ruined world.

In the winding hollows of the Black Hills, the wayfarer successively sees long, valleys of bleak stony surfaces, covered with the stiff, jagged and frosty leaved *artemisia*, and beautiful little bottoms profusely overgrown with grass and flowers, where the mountain sheep, the buffalo and the antelope, delight to ramble, browsing on the rich grasses, and drinking from the limpid fountains which gush from the hill-sides. These are the localities, too, where the hunter finds his richest reward. Stealing around the brows of hills and rocks, whose points shade him from the view, and whose summits prevent the wind from giving notice of his approach; or crawling on the surface through the green curtain of tall grass until he gains a point from which his shot may tell, he rarely returns, if game is in the valleys, without a store of provision to make glad the inmates of his lodge.

But it is beyond, and in the midst of the mountains, that the mind is filled with admiration. In their valleys he may find lakes, and streams, and torrents, and trees and vines, and fruits and flowers—lakes whose broad bright surfaces expand in shining sheets of silver, still and calm as "a slumbering infant," save when their bosoms are disturbed by the lash of the glittering fish, as in their gambols they leap into the air and plunge into the wave; streams and torrents whose limpid waters spring in rainbow-hues from the wild rocks, or ripple and wind in gentle music through the vale; trees whose tall forms, clothed in dark foliage, throw an impenetrable shade over his head; vines whose erratic branches stretches in festoons from limb to limb, bending beneath the weight of their berries; fruits whose rich pungent taste Lucullus would have envied; and flowers whose varied hues flash like the gems and stones on an eastern monarch's robe.

If sated and cloyed with exhibitions of beauty and fragrance, he has but to pass through yonder fissure opened up by the volcano, the dark grey walls of which rise hundreds of feet above his head, and open his eyes upon the scene beyond. He will behold a long dark valley of desolation, upon the vital energies of which the angel of death has set his seal. Broad slopes of discolored marl spread over the surface, with here and there black spots of extinct cinders; huge masses of granite tumbled in inextricable confusion, with their ferruginous sides discolored with age, and plains of sand, and fragments, under the hollow surfaces of which the hoarse, roaring, and pent up waters struggle for an outlet.

If scenes of grandeur and sublimity are desired, let him ascend the summit of some peak, whose point pierces the clouds far above its rivals. In his progress, he will wind through ravines and around rocks, and labor up narrow paths which the rains and melting snows have washed out; sometimes between jutting cliffs, sometimes on their very outer edge, where hundreds of feet below the tall trees seem diminished into shrubs; and anon he will land upon an immense broad terrace spread thousands of yards around, with a bright lake gleaming in the refracted light, and brilliant alpine plants waving their beautiful flowers upon its margin. But hem ust soon leave this oasis, for when he turns his eyes upward, the goal of his ambition is so far beyond the ken of his vision, that he feels as if, instead of ascending, the whole mass under him had been receding, like the mountains of ice over which Parry attempted to toil his way to the pole. He wades through snow-wreaths which the winds have eddied into the indentations; over bright glassy surfaces of ice, and fragments of rock, until wearied and footsore he at last falls exhausted on the pinnacle. But not long he remains exhausted, for the objects which surround him banish the sensation of fatigue, and re-invigorate all his powers. Far away in the distance, the tiny waves of streams, whose accumulated waters are destined to bear upon their bosom the freighted flats of commerce, wind their solitary way

> "Through mountains, plains,—
> Through empires, black with shade,
> And continents of sand."

Nearer along the broad, successive terraces of the opposite mountains, where the evergreen pine; the pitch, with its stiff, angular branches and sombre hues, and the spruce, with its varied curves and bright green color, are crowded in bunches or strung into zigzag lines, interspersed with shrubs and alpine plants; the drifting snow rests its feathery flakes upon them, awakening in the memory the fabled garden in the story of *Aladdin*, where trees and shrubs of gold and silver were leaved and flowered with precious stones, but without one fragrant

odor to delight the sense. If he turn to the west the bare cones rise in multitudes, with their calm, awful forms, shrouded in snow, and their dark shadows projected far into the valleys, like spectres from the chaotic world, risen from the sleep of ages to contemplate the progress of Time, in moulding the dead matter into organized forms of life and beauty. And if the spirit of the tempest walk abroad, he may see far below the rolling clouds, like a troubled ocean, now throwing up bright crests into the sunlight, then opening into dark fissures, and again heaving in enormous waves, the streaked lightning branching and spangling through their folds;—and he may hear the deep thunder as with plenipotent force it peals through the dark profound, rattles in tremendous volleys, and reverberates through the distant hills.

It is like no other mountain scenery in the world. In all other localities there is the appearance of having been created, and they manifest on their surfaces the predominating principles of order. But here it is as if Nature were struggling against the reign of "chaos and ancient night," and slowly conquering an empire in the boundless infinite. When the senses are absolutely pained with the contemplation, the spectator involuntarily closes his eyes; but even then his imagination is so saturated with overwhelming images, that it labors on in vain through link after link in the endless chain of causes and analogies which bind the visible creation to its eternal Head.

ARTICLE III.

We are pleased to learn that our suggestions, in the July number of the Western Journal, relating to a system of Internal Improvement west of the Mississippi, have been regarded, in different parts of the country, as well timed and worthy of discussion. Though the project of a road commencing at St. Charles and running northwardly, is somewhat startling to most minds, yet, as far as we have heard an expression, all conclude, upon reflection, that it must constitute the great line of communication between the north and the south, and that the wants of the two extremes, and more especially of the north, will in time insure the accomplishment of the work. But many suppose that the time is far distant when the population and commerce of the region through which the road would pass, will be sufficient to sustain it. These individuals do not take into consideration the extraordinary tide of emigration that is flowing into Iowa, and that the prairies of that

State produce a full crop of wheat, when sown on the sod the same season that it is broken. In such a country, the agricultural resources are as fully developed in two or three years after settlement as they generally are in timbered districts in ten, or perhaps fifteen years; and we hazard little in asserting that if the road should be completed to the Missouri line, in three years from this date, it would receive business enough from the State of Iowa alone, to pay a respectable profit on the investment. The emigrants to Iowa have none of the traits that distinguish the backwoodsman. They are educated and inured to habits of industry, and having been accustomed to the comforts of civilization, require such facilities of commerce and social intercourse as are but little cared for, or perhaps not thought of, by the older inhabitants of the west. The route which we propose will penetrate the centre and heart of a State which, in ten years from the present date, will, in all probability, contain one million of inhabitants, whose commerce with the south, for four months in the year, can be carried on only by means of this improvement.

In view of these considerations, we are persuaded that the work cannot be commenced too soon. Let the Legislatures of Missouri, Iowa, and Minnesota, act promptly—grant charters, and memorialize Congress for a liberal appropriation of public land in aid of the enterprize; and if such an appropriation should be made, and followed with energy on the part of the people, the work may be commenced under the most favorable auspices, within two years from the present time.

We copy the following article from the pen of the talented and judicious senior Editor of the Burlington Telegraph, for the purpose of showing how rapidly population is spreading over the fertile and beautiful plains of Iowa:

SYSTEM OF INTERNAL IMPROVEMENTS WEST OF THE MISSISSIPPI.

Let us take it for granted that the violence of the present storm, which threatens the Union, will soon subside, and be succeeded by a prosperous calm; and, ceasing to look to the dissolution of our confederacy as one of the probable events of the future, let us turn, for a moment, to the consideration of those subjects which may soon become of local and special interest to us all.

In a late number of the *Western Journal* (a monthly publication of much merit, issued at St. Louis) we notice an article which treats generally of a system of improveemnts, yet to be projected, as necessary to the full development of the resources of the vast region of country lying west of the Mississippi river, and particularly of a railroad, starting at St. Charles,

and traversing the State of Missouri in a north-westerly direction, and thence extending northward through the State of Iowa, on the dividing ridge between the Mississippi and Missouri rivers, to the Hudson's Bay settlements—to be constructed mainly by donations from Congress, and to be completed as the wants of the times may warrant.

This proposition, at first blush, may strike a majority of readers as singularly extravagant, and as some half century in advance of the age. Yet a little reflection may be sufficient to convince even the most skeptical that the proposition has something of a reasonable basis, wild as it may seem, in existing facts.

Missouri is amongst the oldest and wealthiest of the western States; and people generally, without stopping to apply the figures, would readily yield the point that a railroad, traversing any portion of the State, particularly any portion north of St. Louis, "would pay," if we may use the short hand of the day. So well satisfied are we of this fact, from personal observation—from a knowledge of the character and extent of the population—and from the richness of the soil and its abundant and various products, that we would deem it altogether superfluous to go through the tedious process of calculation in order to arrive at a proper understanding of the matter.

This point being settled, it remains to inquire into the state of facts at home. With a larger extent of available farming lands than Missouri, a soil equal, if not superior, to the best that she can boast, and a climate equally as propitious to the abundant productions of the "kindly fruits of the earth," what is there to prevent the State of Iowa from presenting, at an early day, the same reasons now seen to exist in the State of Missouri to authorize the improvement contemplated? We are, as a State, but little if any behind Missouri in point of actual settlements, (we mean good farms and industrious farmers,) and but for her 80,000 people, crowded within the narrow limits of St. Louis, (and leaving out her blacks,) we should probably exceed her in actual population. Doubtless the census of 1860 will throw us greatly in advance of her in every respect—for it seems to be the destiny of all free States greatly to outgrow and soon to overshadow their slave neighbors. Missouri herself furnishes the most striking proof of this fact—for, with greater advantages and more internal resources than any other two States in the Union put together, she has long since been overhauled by, and now lags dreadfully in the rear of her nearest neighbor, Illinois; and now comes the young and booming Iowa, with but three winters on her head, almost ready to contest the palm with her on any point.

We incline to the opinion, therefore, that, on the average, we are about as well prepared to enter upon such an enter-

prize as is our neighbor on the south; at least, we may, if we choose, with the same propriety, begin to agitate the question with the view of bringing it before Congress at some future day. If it ever becomes the true interest of Missouri to intersect us at any point with any improvement of this description, it will certainly become our interest to aid and encourage the enterprise.

It is but some dozen years since the people commenced emigrating, in any numbers, to Iowa, and forming permanent settlements. Now we have flourishing towns and cities stretched along upon the banks of our noble river for a distance of full three hundred miles, with populations severally ranging from one to five and six thousand, and the country for one hundred and fifty miles in the rear of us dotted over with villages, and blooming as the rose beneath the tillage of a glorious agricultural population. When we recur back to the scenes of but a dozen summers since, and the green and beautiful but then desert plains of Iowa, and the few and scattered frames of the present city of Burlington are called to mind, the advancements made would seem to have been the work of magic, so wonderful has been the change, so extraordinary the result. Young as we still are, we have already lived to see more than the most sanguine could have anticipated at the time of which we speak.

From this fact let us deduce another—that what has been done may be done again. It is but three years since the Pottawattomies left the western portion of our State, and but two years since the Winnebagoes left us on the north. And yet look at the rapid changes which have followed. It is true that on the western side of the State no material settlements have been commenced as yet, but this fact is doubtless owing to the pre-occupancy of the country by a peculiar sect who are not regarded by some persons as desirable neighbors. But these individuals, whether the allegations made against them be true or false, are rapidly leaving for their "promised land," and will not long remain to interfere with the inclinations of our ever westward-tending population. On the north of us, and in that region of country known as the Neutral Ground, and the former home of the Winnebagoes, we are informed that quite a dense population has already been formed, composed of the best class of enterprising farmers. It is a fine country, and must continue to invite settlements for years to come.

Leaving our own State, then, for a while, we pass into what is at present the Sioux country, but which will ultimately form either a new State, or become the most attractive portion of Minnesota. A more beautiful region lies not under the sun, and it is not to be wondered at that the poor Indians should be reluctant to part with it. Its purchase, and the removal of the Indians, will be a signal which will be hailed with delight by

the rushing thousands, and will mark the founding of one of the noblest States of the confederacy. With the Mississippi upon its East, an outlet by navigable streams to the Missouri on the West, and the St. Peters traversing its centre, and navigable for two hundred and fifty miles, there are but few portions of the continent which give promise of a more pregnant future, or a higher destiny. Through this beautiful region it is proposed to continue the improvement towards its ultimate termination. That the requisite population will be there to meet it, and to warrant it, within the space of a brief period, is a fact not admitting of doubt, if we take the history of the past as a safe rule of reasoning.

The trade of the Hudson's Bay settlements amounts to millions annually. At present it is monopolised by British traders, who live there under the protection of a large British military force. If American enterprise should be so far encouraged, by the fostering hand of our own government, as to enable our own traders to enter into competition, the diversion of a large amount of this trade into our own hands would soon follow as an inevitable result. It is cerainly worth looking after.

These facts are crudely thrown together for the purpose of letting our readers know that this subject is engaging the thoughts of active and intelligent minds beyond the limits of our State; and that the public attention is being directed to what may be denominated a series of internal improvements *West of the Mississippi river*, connecting all the parts of this immense region, and extending from the most distant point of the snowy North to the great emporium of the South. It will at least furnish food for reflection; and if the dissolution of the Union should fortunately be postponed until after we shall have thus knitted all our parts firmly together, we shall certainly have a respectable empire left us to retire upon. J. M. Morgan.

ART. IV.—MISSOURI AND IOWA RAILROAD.

Dubuque, *September* 3, 1850.

Dear Sir: I have read the article on Minnesota, in your July number of the Western Journal, and I thank you for having brought that Railroad project before the public. This project is by no means new to me, for it has frequently been a subject of conversation between citizens of southern Iowa and myself during the past two or three years. We thought, however, that it was better to *lie still* for a while, until the Des Moines River Improvement would acquire more stability, and

a fairer prospect of success towards completion; when the extensive and fertile region watered by the upper Des Moines would be sufficiently populous to warrant both schemes. I have often expressed surprise that this subject has never been mooted in any of the St. Louis journals; for it needs no examination of the country—a mere glance at the map will be sufficient—to convince any man, that no cheaper or better route exists on this Continent, than the dividing ridge from St. Charles to the vicinity of Fort Des Moines, between the waters of the Mississippi and Missouri rivers.

When I read the letter of William R. Singleton, Esq., Engineer of the Independence & Missouri River Railroad, in the Western Journal for May, 1849, I thought he was arriving at the project which you now propose, when he said, "Observe the connection which may be made by a railroad from the mouth of the St. Peters to Lake Superior, and from the mouth of St. Peters to the Des Moines." I was glad to find, however, that his ideas took a more extensive—a national range, "to the head of the Platte and Grand rivers;" but if it be true, as you say, that "a profitable intercourse can only be kept up by means of a railway," then indeed is it time that some Rip Van Winkle should awaken from among the merchants of St. Louis, to see the direction in which the world is moving. You tell them that "the great northern line of railroad, with its branches, will doubtless keep pace with the settlement of the country until it reaches the Rocky Mountains," and you might have added in the same breath, that as "the star of empire wends its westward way," so will the current of trade seek its eastward track to ports on the Atlantic. "The natural laws of commerce may compose a pap on which antiquated nations may feed for a while, but the age in which we live forbids that Iowa and Minnesota should continue to send their mineral and agricultural products to St. Louis, for no other reason than that the Mississippi runs southward! That "great northern line" is approaching the Mississippi at a rapid rate, and you may rest assured that the young and vigorous State of Iowa will not impede its progress. The rival roads of two enterprising young cities on Lake Michigan will cross the Mississippi together at Dubuque. The La Salle and Rock Island road will cross at Davenport. The junction of these roads will be at Iowa City, the capital of the State, and from thence westward the main line will proceed through Fort Des Moines to Council Bluffs. The distance from Council Bluffs to Fort Laramie is at least one hundred and fifty miles shorter than the road from Independence, and a road on a flat, loamy soil bears no comparison to one on a dry, smooth ridge.

A railroad could be constructed from St. Charles to the

vicinity of Fort Des Moines, without crossing a single stream, and at a cost infinitely less than your long-talked of road from St. Joseph to Hannibal. The advantages would be ten fold greater, also, for, as you truly remark, "a system of plank roads, as feeders, will afford all the commercial facilities that could reasonably be desired." "That the work must commence in Missouri," there is no doubt, and it is equally certain, that unless the people of Missouri take the initiatory step, many years may elapse before Iowa or Minnesota will move in the matter," for their interests are not so immediately involved, and their aspirations are led off in another direction. Should Missouri do her part, Iowa will not be wanting; but so far as regards the "incorporation of a joint stock company," she will not, in our day, grant special privileges without holding on by a tight rein to individual liability.

A road from St. Charles to Fort Des Moines would be less than two hundred and fifty miles in length, and would terminate in the heart of a country inferior to none on the globe. The Board of Public Works, in their report to the last General Assembly, say that the United States Geologist speaks in the highest terms of this country, for beauty, agricultural capacity, and mineral resources. "He found coal for two hundred miles along the Des Moines, and heavy deposits of iron ore are also believed to exist. Gypsum in abundance, forming cliffs for miles. Limestone, that makes superior hydraulic lime, exists in abundance. Limestone suitable for lime; clay suitable for bricks; rocks for polishing, for grindstones, whetstones, and for building purposes—some of a superior quality—are found in abundance along the Des Moines. There is also a great abundance of water power in the whole region, and timber plenty throughout most of the country." Col. Curtis, in his report No. 3, on the Des Moines River Improvement, says "A reference to the map will show that such is the distance to the Missouri, Mississippi, and other streams, from Fort Des Moines, that we cannot doubt the reasonable prospect of this point being the centre of business for a country one hundred miles west and north of it." A great surplus of cereal grains, horses, beef cattle, and hogs, is now sent off from several counties in this region, although the settlements of many of them can only be dated back five or six years.

It is doubtful to my mind whether it even would be found necessary to extend this road from Fort Des Moines northward, for the Des Moines river is navigable for steamboats of two hundred tons burden, to near the northern boundary of Iowa. This extension would certainly not be called for for many years, nor until it could be constructed from the proceeds of the first division, for a canal of a mile, or a mile and a half in length, will connect the Des Moines with the waters of the

St. Peters. The country between the St. Peters and the northern boundary of Iowa, is the garden of Minnesota. In truth, Minnesota will have no country to which she can invite the farmer until this country is acquired, and by the construction of this short canal all the surplus products of this fine country would necessarily and naturally flow to the terminus of your road. Whenever the trade of northern Minnesota, or of the Red river of the North, would warrant the extension of your road, it may be done, but not till then.

But, go where we will, the ghost of that Great Northern line of Railroad, or its imps, will hover around us. A union of eastern capitalists, with a view to a concentration of stock, is now strenuously advocated, and in part effected, for the purpose of uniting on the most desirable point to cross the Mississippi. Engineers have examined and reported on the points most practicable to construct one or more bridges, and whatever point may be selected, I suppose it may be taken for granted, as a matter beyond all controversy, that the Council Bluffs will be the favored point on the Missouri river. Another fact which may be taken for granted is, that a railroad will be constructed from Dubuque south-westwardly into the interior of Iowa, as soon as, or before, the Chicago and Milwaukee roads form a junction; and wherever the "Great Northern" line crosses the Mississippi, this road will connect with it, and consequently with your St. Charles road at Fort Des Moines, thus forming a continuous chain from Dubuque to St. Charles. There is a possibility, however that as eastern capitalists become better acquainted with the geography of Iowa, a more northern point may be preferred to cross the Des Moines—first, because it is believed that art cannot construct abutments and piers of sufficient strength to resist the power of the ice which rushes in mountain masses over the Rapids at the breaking up of winter: secondly, because the Chicago and Galena line may be adopted as the main track: and thirdly, because a road can be constructed from Dubuque to the falls of Cedar river, around the head of Skunk, crossing the Des Moines at Boone Forks, and dropping down to Council Bluffs on the ridge between the Boyer and Soldier rivers, at a cost full one-third less than any route which can be selected further south. This route runs due west from the junction of the Lake routes now in progress: it would cross only one navigable stream, (the Des Moines,) about three hundred feet wide at Boone Forks; materials are abundant, and the ground dry and solid. Senator Douglass, of Illinois, has introduced a bill, which is said to have passed the body of which he is a distinguished member, for a grant of land to construct a railroad from Dubuque to the Red river of the North, with a bridge across the Mississippi river at Dubuque, in order to connect

at that point with the Chicago road, and with the west branch of the Illinois Central Railroad. You may therefore expect that your road will meet a rival at no very distant day, in that beautiful country watered by the St. Peters and its tributaries—"a most beautiful tract of land," says Niccolet, "diversified by hills, dales, woodlands, and lakes, the latter abounding in fish."

I think you are mistaken when yon "anticipate that the system proposed (by you) will not meet with favor from citizens near the Mississippi." It is true, as already intimated, that it may appear at first view to conflict with the interests of the Des Moines river improvement, and perhaps with other projects more favored by the people; but I hope that legislators, and men of reflecting minds, will look above and beyond the contracted and selfish notions of a bygone age. There is no State in the Union more highly favored by nature than Iowa. Her whole area is well watered and well timbered. Cereal grains, esculent roots, and vegetables of all descriptions, grow luxuriantly from her soil. Her lead, coal, iron, zinc, gypsum, and other minerals, are very abundant, and no State can afford a better supply of hydraulic power for manufacturing purposes. As our channels of communication with the eastern and southern markets increase, so in proportion will our resources be developed, and trade augmented, our wants supplied, and our untrodden lands will become the home of thousands who otherwise would never think of securing a resting place in the far west. Our first railroad, no matter where constructed, will only be a pioneer to others which will soon follow in rapid succession. I honestly believe that even an incipient movement in favor of the road which you propose, would do much to hasten the Des Moines river improvement towards completion, and the extraordinary growth of population in the territory of Iowa will afford both schemes a profitable business. Be assured too, sir, that your road will not reach the Des Moines before the great northern line will arrive there, *en route* for Council Bluffs. Two years more will probably complete the two lines now approaching the Mississippi from Chicago and Milwaukie, and then will all the energies of our young State be brought into requisition to complete her division to the Missouri river at the earliest practicable period. No, sir, citizens near the Mississippi will not receive your project with disfavor, but they will thank you for the laudable spirit of rivalry which it will enlist. I do not promise, however, that the sympathies of this vicinity will not be with the east, in an effort to probe the undine region and the coteau des prairie of Nichcolet, before our heads are grey. Yankee enterprise is coming on to teach our "young ideas how to shoot."

There is also a country west of the Missouri river which will

claim attention at no distant day. I have made many efforts to procure some official documents on the geology and topography of this vast region, but I can refer at present only to the letters of the celebrated Oregon Missionary, Father de Smidt, of your city, who was employed by Major Harvey to visit the Sioux of the upper Mississippi, in the fall of 1848. He spent four months among these Indians, north of the Platte river, and traveled three thousand miles in different directions, over the country watered by the Platte, the Yellow Stone, the White Earth, the Niobrarah, the Jefferson, the Gallatin, the Madison, the Sascatshawin, the Athabasca, &c. He says that the soil of the plains which he traversed has, in general, a good vegetable mould, producing luxuriant grasses, but above all that the alluvial valleys, watered and crossed by the rivers of the country, appear to be uncommonly fertile and rich. "Woodlands abound more or less along all the rivers, but especially along the banks of the upper Missouri, which presented many a beautiful landscape view as we proceeded on our journey." "Oak, of different species, elms, poplars, ash, sycamore, walnut, hackberry, and many other species of the tree tribe, are found throughout this country." "When American industry shall have plunged the ploughshare into its fertile soil, and guided the harrow from ridge to ridge; when the tide of European emigration shall roll over its undulating surface, then will the character of these plains be changed:" and then, I may add, will the locomotive whistle with its train, over the great northern line, to seaports on the Atlantic? We who reside near the Mississippi know that Iowa has but just thrown off the territorial pinafore, and we look forward to the day when the things portrayed above will have come to pass. We look at what Ohio was when you and I were in our minority, and in projecting a system of internal improvements we move cautiously in view of our high destiny. The spirit of our people is in full keeping with the progress of the age, but example and prudent counsels direct us to move cautiously until we ripen in years, in knowledge, and in resources. Your Minnesota railroad may one day be our central artery, with an arm extending to Dubuque, on the ridge between the Turkey and Maquoketa rivers, in connection with the Milwaukie and Chicago roads. Another to Davenport, between the waters of the Wapsipinnicon and Cedar rivers, in connection with the Rock Island and Lasalle road, to Muscatine and Burlington, between the waters of the Iowa and Skunk rivers, in connection with the Oquawka and Peoria road. The Des Moines river slack-water navigation will form another arm, or in time, when circumstances will warrant, a railroad can be constructed on the beautiful and fertile prairie ridge which divides the waters of the skunk from those of the Des Moines. Similar arms may follow the ridges

between the large streams which flow into the Missouri river, and the great national Atlantic line will intersect them also. Such is the aim of Iowa, and the destiny of the great North-West ere fifty years are past.

With my best thanks for having called forth these desultory remarks by your letter of the 29th July,

I am, dear sir, faithfully yours,

CHAS. CORKERY.

ART. V.—COCO RIVER.

Scarcely any part of the habitable globe is less known to civilized nations than that portion of Central America designated as the "Mosquito Territory." The Indian tribes of this territory were never subdued by the Spaniards. Juarras, in his work on Guatemala, says: "Their love of liberty, added to their national bravery, impelled them to maintain, in sovereign independency, the possession of their mountains, valleys, woods, lakes, and rivers, against the superior art, arms, and even cruelties of Spain." The Mosquito coast is low, and has been generally represented as unhealthy; but the interior is represented by travelers, as being both salubrious and fertile. Owing to the great elevation of some portions of the interior, it affords every degree of climate that can be desired; producing within short distances of each other, the plants and fruits of every climate of the globe. Such a country, located on the great commercial highway between Europe and Asia, as this will be, should the Nicaragua canal ever be completed,—must become, in time, one of the most desirable spots upon the earth; and cannot long remain a wilderness, for savages to hunt and fish in, to the exclusion of civilized man.

The following description of the Caco river is from the pen of an officer in the Nicaragua army, and was lately communicated to the New York Herald by the Hon. Geo. E. Squier, to whom it was directed. Believing that it will be found interesting to our readers, we have given it a place in our journal.

CENTRAL AMERICA---THE RIVER COCO---AND THE MOSQUITO INDIANS.

LETTER FROM THE HON. GEO. E. SQUIER.

Washington, July 18, 1850.

Shortly before leaving Central America, I had placed in my hands, by my friend Colonel Dias, of the Nicaragua army, and Prefect of the Department of New Segovia, a paper relating to the important river of Coco, (sometimes known as the Wanks, or Segovia,) and the country bordering it, as also conveying some facts concerning the Indians dwelling at its mouth

constituting part of the Moscos or Mosquitos, of which we have lately heard so much. As Central America is now attracting a large share of public attention, and as the paper in question conveys a good many facts of interest, I have taken the trouble to make a hurried translation, which is appended, and which is at your disposal. The river Coco, I may mention, has its mouth in the Cape Gracios a Dios; it is some three hundred miles in length, being the largest stream in Central America, and takes its rise in the Department of Segovia, at Nicaragua, a department unsurpassed for the salubrity of its climate, its agricultural resources, and its mineral wealth. Here are found all the productions of the temperate zone, almost side by side with those of the tropics, a circumstance which, in conjunction with other advantages, will give this section a high value as the country is opened to American enterprise. I am, very respectfully, your obedient servant.

GEO. E. SQUIER.

TO THE PREFECT OF THE DEPARTMENT OF NEW SEGOVIA.

Ocotal, April 25, 1850.

Sir: As you have desired to receive from me an exact account of the observations which I made in my voyage down the river Coco to its mouth, at Cape Gracios a Dios, in 1842, I have the honor to submit the following:—

In making my journey in the year here cited, I did not fail to discover that the river, as high as traffic is proposed to be carried on, is amply navigable, and that there are few obstacles from the point called Coco to that called in the Mosquo (Mosquito) dialect Pailla. Just above the latter point there falls into it a large and beautiful river named Bocay, the mouth of which is near that of the large river Pantesma, on the right hand, descending. There are other medium sized tributaries, among which is the Poteca, rising on the left side of the mountains surrounding the great valley of Jalappa, at a point called Macarali. It is too rough for navigation. There is also the river Coa, which flows from the south along the base of high and steep mountains. It abounds in fish, and the forest is rich in honey, as also in valuable woods, the supply of which could not be exhausted in many years.

I pass now to describe the rapids which commence at the place called Pailla. They are, Gualicuitan, which has a strong current, and a broken narrow channel between the rocks, but which may be passed without the least danger. Ulacuz, which is similar, but without danger, abounding in water derived from the great river Ulacuz, which falls from the right from fearful (Expantosa) mountains, in my opinion extending to the south-east. Guascuru has its rapids, which, though somewhat abrupt,

are without risk in the passage. Quiorex is similar, though there is a fall before arriving to it, around which, however, nature has formed a canal, so that the navigation of the river is uninterrupted. Turuquitan is a rapid or narrows, which is only dangerous for the transportation of cattle, on account of a great rock in the middle of a stream, upon which, if the rowers are not dexterous, the rafts are sure to run. But accidents are rare, inasmuch as the oarsmen are accustomed to this kind of navigation from their youth. Suginquitan is another unimportant rapid. At Crantara the current is strong, but the passage is entirely practicable, as is also the case at Pistalquitan. The rapids of Cairas, at first sight, terrifies the voyager with its rushing, foaming, tempestuous waters, yet does not prevent his passage, for nature has also provided marvellously for overcoming the difficulty, and made a side canal, before arriving at the dangerous point, by means of which the boats can be passed by the oarsmen in an hour, with entire safety. Tilras and Quipispe are the final rapids, and are unimportant.

These are the sole obstructions to the navigation of the river from the point of embarkation to the sea, at Cape Gracios a Dios. At present the descent occupies about ten days. Two days are taken up in descending the rapids here described, and four in ascending them. It will be observed that only about a fifth part of the river is in any way obstructed. The delay in the voyage is chiefly occasioned by unloading and reloading at some of the points above mentioned. From the last named rapids to the Cape, there is scarcely any current, and it is necessary to use the oars. This part of the country, through which the river passes, is very beautiful, being composed of open plains covered with grass and scattered trees. It is a country well adapted to raising black cattle and horses, as also to the introduction of colonies, which, in a few years, could attain to prosperity and riches upon its virgin soil, in cultivating its numerous valuable native fruits, and in consequence of its proximity to the Cape and the great Antilles, affording every means of exportation and a market. Mules and horses may here be raised in the greatest abundance, and profitably shipped to Cuba, Jamaica, and other points where most valued.

It is lamentable to find so beautiful a coast with no other population except a worthless Moscos, (Mosquitos,) unable, from want of education, as unfitted by disposition, to attain to any improvement in the future. I will endeavor to give some idea of their savage situation and customs. Most of them subsist by hunting and fishing, and a very few by a rude and petty agriculture, planting in little patches on the borders of the river, small quantities of plantains, yucas, sweet cane, and cotton, the last of which is rudely spun and woven by the women, in the form of blankets, sails for their canoes, strings for

their bows, and netting for feather-work. Some of their feather-work is quite beautiful. They make a kind of cloth of the bark of a tree, called "uni," which serves for dress and a covering at night. They celebrate the anniversaries of the death of their parents, or friends, with most doleful and unharmonious songs and wailings, which are enough to put the timid traveler to flight. This mourning or lamentation is chiefly performed by the women, under a tent of "uni" bark. Some perform the ceremony walking backwards and forwards for the distance of about one hundred yards, in the following manner: They advance four or five steps, and then fall flat on their chest and face, with a force apparently great enough to kill themselves, repeating the same barbaric ceremony until the night closes. Some paint their faces with achiote or tile, and though they exhibit some skill in this, most are rendered horrible from the operation. They are all very much addicted to strong drinks, and when a dram is given them they exhibit great satisfaction, and endeavor to return some article which their situation enables them to give. But this is done on the moment, and the favor is soon forgotten. They appear kind, and exert themselves to please strangers who may visit their huts; for, though there are among them some bad and disorderly Indians, yet there are very few who will offer any violence to the traveler, principally, however, on account of the fear in which they stand of their chiefs, to whom they pay great deference. For any fault of obedience, or any crime, they are severely punished, so that traders may carry on their traffic with little fear of insult or injury. They are fond of dances, for which they provide fermented liquors of cane juice and yuca in great abundance, and when the day fixed upon arrives, a great number of families collect, all having their faces fantastically painted. When they are gathered, two married dancers open the dance, appearing suddenly from the depths of the forest, where they are previously hidden, dressed in palm leaves, and painted of various colors. These extraordinary figures enter a square covered with *pacaya* leaves, where they dance a whole day, joined by many people. Meanwhile, most of the guests remain in or about the hut of their host, drinking eagerly the fermented liquors, which, being strong, soon upset them, producing violent vomiting. Upon recovering a little, and the sun somewhat declining, the males form their dance apart from the women, making use, as instruments of music, of a dull-sounding drum, and of some great hoarse-sounding pipes of hollow reeds, the noise of which is frightful, accompanied by some small pipes, to the measure of which rude instruments the musicians as well as the people dance until nine or ten o'clock at night. The women, also apart, commence their dance at eight o'clock at night, and continue

until five in the morning. They form a right line, one taking the hand of the other, occasionally separating and shaking a rattling gourd, to the sound of which, accompanied by a low chaunt, they dance. It can hardly be said that any of these dances are worth seeing; but it is certain that, in spite of their extravagance, they do not fail greatly to amuse the civilized spectator.

Some of these Moscos (Mosquitos) raise mares in considerable numbers, and some few cows, besides which, they have a little commerce with Belize, from which place are brought some pieces of clothing, iron pots, guns, axes, and other articles, which are carried to different points in the valley of Pantama, the old Look-out, and to the town of Talpeneca, where they are exchanged for calves of one or two years old, which are carried in balsas (rafts) down to the coast.

The chief, or "king," who at this time governed these savages, was a man of small stature, thin, with an aquiline nose, dark color, descended from Gicaque and Mosco ancestors, and had some education. His residence was generally upon the banks of the river. He was hospitable to the voyagers, inviting them to his hut, and feasting them to the best of his ability while they remained with him. He also insisted on all who were fond of *aguardiente* (rum) to drink until they could not move, on pain of being regarded as wanting in consideration to him.

I might add much more, but must conclude a communication which I fear is becoming tiresome.

Cape Gracios a Dios, unfortunately, has no commerce, but it has a favorable and picturesque situation. It has in front a salt lake of large capacity, which is separated from the ocean by a strip of land covered with mangroves, opening to the sea upon the south, where vessels may enter, to reach the town or settlement. The coast is here occupied by Mascos and Sambos, among whom are one or two Englishmen. One of these is named Stanislaus Thomas Haley, who has about one hundred head of cattle, with some mares and saddle horses. The climate at this point is healthy, as is also that of the valley of the river, for in all my journey I saw but one sick person.

Of the islands on the coast I have no personal knowledge. In returning from the cape, I was occupied twenty days. The distance would not occupy a steamboat like those used on the Mississippi river more than eight days.* Mr. Haley assured me that a road might be opened by which the journey from the cape to this point might be made in six days. He also stated,

* The writer has probably very vague ideas of the rapidity of the Mississippi river steamers. If no insurmountable obstacles exist, it is likely a steamer might traverse the river Coco, from one end to the other, in a day or day and a half.
E. G. S.

that, in his opinion, at a cost of $10,000, the few difficulties in the river, which obstruct the transportation of commodities, could be removed.

Begging you to pardon my errors of language, I submit the above to your judgment, and subscribe myself, &c.,

JUAN FRANCISCO IRIAS.

ART. VI.—INTERNAL IMPROVEMENT AND THE PUBLIC LANDS.

In article three of the March number, 1850, of the Western Journal, is given the drainage on the north and south side of the Missouri river, in connection with a comparison of the routes on either side for the Pacific Railway. In that estimate the whole drainage into the Missouri river on the north, from its mouth up to the Platte river, including all of its tributaries, was given, while on the south side the actual drainage within the State, only, was given. Now, as we went into the State of Iowa and estimated the surface drained by streams which head in that State, let us now return to the south side, and taking the valley of the Osage, follow it amongst the Pottawatamies and other Indian tribes, until we lose it in its interlockings with the Neosho, a tributary of the Arkansas, and we shall find an area outside of the State limits, which is drained into the Missouri river through the south half of the State, of 3,850 square miles. Now, this sum, added to 19,850 square miles, the drainage within the State, and we have the round sum of 23,700 square miles drained into the Missouri river on the south side, against 16,460 on the north side, so far as the route of a railway would be concerned.

The article referred to above, in the March number, was not written with the view or wish of having the effect to draw off any contemplated improvement which might be designed to pass out through the mining and mineral region; this region requires an outlet—a safe, quick and easy passage to market; but it was written with a view of clearing up the insinuation, or rather declaration, that the north side is scarcely susceptible of improvement by the construction of railways, on account of the unevenness of the country, and the much greater drainage into the Missouri river than on the south half of the State. This matter being satisfactorily cleared up—at least, to our understanding—we will venture the assertion, that in no other section of the United States can a railroad be constructed so cheaply, and at the same promise to yield a handsome dividend to the stockholder, as a road from the city of St. Charles—pass-

ing up the divide between the tributaries of the Mississippi and Missouri rivers—entering Iowa, pass along the same ridge, or diverge to the right and strike the river Des Moines at Raccoon Fork, (Fort Des Moines;) thence with the valley of this stream, or main ridge, we enter the Sioux territory and Minnesota at the head waters of Blue Earth river; thence down this stream and the Minnesota river to St. Paul, on the Mississippi river. Nor need we stop, on arriving at St. Paul, for by that time the country far to the north will have become densely populated, and its productions require an outlet to the markets of the sunny south at all seasons of the year. The main trunk, in time, might be continued along the dividing ridge to the head waters of the Red river of the North, and thence down to Selkirk's settlement, on our northern boundary line; thus eventually drawing from this fertile region and the Hudson Bay country, an immense trade, and rolling it southward, finally deposit it in the great Southern Emporium. This route will, in its course, intersect at right angles the Hannibal and St. Joseph, and the Chicago and Council Bluffs, or Milwaukee and Council Bluffs, rairloads. It will afford to the cities and settlements on both the Missouri and Mississippi sides of the main trunk, the opportunity of making branch roads, intersecting at points they may choose. It opens an outlet to northern Missouri and Mississippi rivers at all seasons—during the low water of summer's drouth and the ice-bound season of the northern winter. Fifteen hundred Selkirkers, too, who in times past have done their trading at St. Louis, but now at St. Paul—they, and all their progeny and increase, would run to meet us—not, perhaps, with open arms, but with a road, graded, ready for the superstructure to be laid down upon it.

Nor should we lose sight of the probable fact, that by this route St. Louis may be connected with California sooner than by any other; for the construction of a railroad across the State of Iowa to Council Bluffs amounts to as much of a certainty as any other thing which has not yet been accomplished, and then carried through, or connected with, the great Pacific trunk railway. Thus, with a railway north of the Missouri river, is the trade of the far-off north and the great west secured; and the city of New Orleans is immediately interested, almost, in an equal ratio with St. Louis. Considering this scheme in all of its bearings—as a great thoroughfare of travel—a great commercial highway—developing the resources of the country through which it may pass—a strong arm of national defence—as an iron bond of union—it presents to the mind one of the most important and splendid national works in this vast Republic.

It has been demonstrated by S. R. Curtis, principal Engineer of the Des Moines Improvement, (see Western Journal, Sept.

1849, pages 380–1,) that upon the completion of the work under his charge, freight may be shipped up the Mississippi river to Keokuk, thence up the Des Moines to its forks, and hauled thence by wagon to Council Bluffs, on the west side of the Missouri river, in the Nebraska Territory, at a less cost than it can be, or that it is now, shipped direct up the Missouri river. Now if this be the fact—and it seems to be clearly established as such—freight on the Missouri river must be reduced, or otherwise that whole upper region of country will be accommodated through some interior channel of transportation.

From St. Louis, via St. Charles and along the dividing ridge between the two rivers, we traverse a series of beautiful prairies, and finally Grand Prairie; pass adjacent to immense beds of coal and numerous salines and minerals of various kinds; and it is known, from various official sources, that large districts of country containing valuable deposits of lead and copper ore exist in the North-western Territory, between the Missouri river and Lake Superior. Another fact worthy of note is this, that a railroad can be built from St. Charles to St. Paul, or to Selkirk's on the north Red river, without crossing a single stream of any size; and the course, at the same time, throughout the whole distance, be very direct. It may be asked, where would water be obtained for the supply of locomotive engines? We would answer, by the way side, from ponds made in the head of hollows by embankments made in the construction of the work.

There need be no apprehension of meeting with insurmountable obstacles on the line of our route, as it has been examined and surveyed at different places with a view to the construction of public works across it, and at nearly right angles to all the breaks of contiguous streams. No one has heard of impracticabilities at right angles to our route; much less then may we anticipate meeting with difficulties when running lengthwise the main ridge itself.

As regards the fertility and productiveness of the soil throughout our proposed line of road, we have the judgment of early travelers, and the verdict of intelligent practical farmers. We will not refer back to the judgment of those travelers—Long, Nicolet, and others, in this case, for we know that much land in the west and south, which was, in early times, considered thin and next to worthless, have proved to be, under the management of experienced farmers, the very best wheat yielding lands in the west, and so of cotton lands, in the south. The best proof of the fertility of the soil, then, is the great rush of emigrants to the country; and we never hear them murmur—all contented—they have the best land, the healt iest place in the country, and fewer musquitoes than any of their neighbors.

In view of all that we have said upon this subject, let us bear

in mind that here we are in the centre of the Union, and that high duties devolve upon us. We cannot do without the North, the South, the East, or the West. We were once—not five years ago—the extreme West: but not so now. The West has receded and fallen back upon the shores of the Pacific Ocean; there it lingers a while, hesitating whether or no it shall pass over to China—ere long it will be there!

In conclusion, we mean to urge the importance of the peoples' taking this matter in hand, and petitioning the Legislature for a charter, and memorializing Congress for a donation of land to be applied to the construction of the road. Iowa is moving, and will meet us at the northern line of Missouri.

But we shall be told by many, that this work will and must be constructed after a while, but it is too soon to move in it; the country is too new—in short, that "it is time enough yet!" Alas! this "it is time enough yet!" is the syren song which the evil genius of man has often sung, and is still whispering into the ears of many lost and undone sinners, let us not listen to it: but while we are young—in our youth, prepare for the great work.

But look back and call to mind the mighty strides our country has made within the last few years, and reflect that by next year, or a few years more at most, we shall be much farther advanced, and shall feel that age has not crept, but rushed upon us as a country, and we shall be old.

Just think of the rapid strides our own State is making in population, wealth, and the development of its resources. If this will not suffice, look beyond it, into the State of Iowa, and her minor sister, Minnesota. Two years ago and St. Paul was in the bushes—she now numbers about two thousand inhabitants, and is building steamboats above the Falls of St. Anthony, and setting them afloat on what is there known as the Upper Mississippi river. The country is rapidly filling up with an energetic population, and Minnesota Territory will soon be asking for admittance into the Union.

Burlington, in Iowa, fifteen years ago was in the bushes, and now has a population of about 5000. Keokuk, six years ago, in the woods, has now a population of some 3000. Fort Des Moines, just out of the bushes, has a population of 1500. Besides these, there are numerous other towns and villages, containing from eight to fifteen hundred citizens. These northern brethren have need of an outlet at all seasons of the year, to our southern markets. The northern part of Iowa, Minnesota, and the same latitude on the Missouri river, are closed in by ice and low water from four to six months in the year—by ice from the first of December to sometime about the first of April, and the upper Missouri river by low water several months in the year.

Now in view of all these things, let us see to it that the Legislature, next winter, grant a charter for a railway from St. Louis to the northern boundary of the State. No doubt a more favorable charter can be obtained at this coming session than can be a few years hence; therefore, the more necessity of moving in the premises at once.

Another consideration which renders an early move in this matter of much importance is, that our interests may be represented at Washington City during the next session of Congress, and pray them to grant us two or three millions of acres, to be applied to the construction of the road. This, to many, may seem to be a very extravagant sum; but when we reflect that the State of Missouri contains 43,123,200 acres of land; that the first sales were made in or about the year 1818, and that there still remains on hand, unsold and unappropriated, the aggregate sum of 29,186,000, there is nothing alarming about it, the more especially when our politicians at Washington have become possessed of such an intense degree of liberal and tender feeling for the masses, that they propose to give away all the public lands to individuals who may become actual settlers. Now this appears to us as a radicalism sprung upon the country without giving the people time or opportunity to take it in hand. They should do so, and consider and dispose of the matter themselves.

And while on this subject we have an idea to advance, or rather a claim to put in. It is this: should the public lands actually be donated to settlers, instead of being given to the States in which they lie, to be devoted to internal improvement and education, then we hold that every settler who has purchased land of the government, and paid for the same, has a just claim on the government for the money paid; and even this will not place the first settlers on an equal footing with those who may receive land without pay at the present day; for the first settlers have undergone all the privations of a frontier life—came in without roads, or markets; had the Indians to drive back and conquer; the forests to subdue, and the country to open and build up. Yes, we hold it to be good doctrine, and sound justice, that the early settler has a more valid claim to his equal portion, than the soldier of 1812 in the war with England, has to his equal portion with the soldier of 1847, who served in the war with Mexico. All men will fight for fame, especially if well paid in cash and land. But you might beat the drum and play the fife for a month, and not a single volunteer could you get, who, for the sake of glory, would turn out and cut down the forests, break up the prairies, and bring into cultivation the frontiers of the country. This subject should be taken in hand by the sovereign people, and disposed of in their own way and manner, as may best subvserve the great interests of the country.

COMMERCIAL STATISTICS.

TABLE SHOWING the QUANTITY AND VALUE OF WHEAT AND FLOUR EXPORTED FROM THE UNITED STATES TO ALL COUNTRIES, DURING THE YEAR ENDING JUNE 30, 1849; COMPILED FROM THE ANNUAL REPORT OF THE REGISTER OF THE UNITED STATES.

Whither Exported.	Wheat. Quantity. Bushels.	Wheat. Value. Dollars.	Flour. Quantity. Barrels.	Flour. Value. Dollars.
Prussia	193	288	2	15
Sweden and Norway	.....	.....	110	519
Swedish West Indies	.....	.....	7,573	39,739
Danish West Indies	.....	.....	49.568	246,437
Hanse Town	.....	.....	1,329	7,614
Holland	.....	.....	727	3,789
Dutch East Indies	.....	.....	4,629	27,483
Dutch West Indies	.....	.....	17 221	94,188
Dutch Guiana	.....	.....	3 349	18,813
England	901 940	1,090,188	836,680	4 466,978
Scotland	67,626	85 249	45,608	239 502
Ireland	103,114	125,336	71,527	370,740
Gibraltar	.....	.....	6 262	32,939
Malta	.....	.....	210	1,210
British East Indies	.....	.....	791	4,875
Cape of Good Hope	269	355	4,720	28,274
Mauritius	.....	.....	500	3,447
Honduras	.....	.....	4,125	23,530
British Guiana	.....	.....	38 502	194,207
British West Indies	7,798	10,265	265,049	1,346,231
Canada	140 696	112,086	19,127	78,129
British Am. Colonies	305,383	332,765	294,891	1,518,922
France on the Atlantic	108	100	.....	.....
French West Indies	.....	.....	5,554	22,684
Miquelon & Fr. fisheries	.....	.....	1,701	9 711
French Guiana	.....	.....	1,390	8,930
Bourbon	407	216	.....	.....
Teneriffe & other Canaries	.....	.....	15	73
Manilla & Phil. Islands	.....	.....	60	388
Cuba	.....	.....	7,154	39,247
Other Spanish W. Indies	.....	.....	6 429	33,047
Madeira	.....	.....	4,358	23,171
Cape de Verds	.....	.....	501	3,109
Trieste & other Aus. ports	.....	.....	75	575
Turkey, Levant, &c.	.....	.....	50	300
Hayti	.....	.....	10,903	59,183
Mexico	.....	.....	11,633	59,471
Central Rep. of America	.....	.....	1,180	7,922
New Grenada	.....	.....	3,070	15 727
Venezuela	.....	.....	29 181	149,583
Brazil	.....	.....	314.808	1,885,203
Cesplatine Republic	.....	.....	13,321	70 353
Argentine Republic	.....	.....	6,592	35,936
Chili	.....	.....	5 129	33 004
Peru	.....	.....	1,050	4,716
China	.....	.....	1.177	7,493
West Indies generally	.....	.....	3,984	21,546
Asia generally	.....	.....	105	645
Africa generally	.....	.....	4,6 7	27,670
South Seas & Pac. ocean	.....	.....	1 180	7,415
Total	1,527 534	1,756,848	2,108,013	11,280,582

The total value of Wheat and Flour exported to all countries, during the year ending June 30, 1849, $13,037,430; of this, $6,377,993 was exported to England, Scotland, and Ireland.

STATEMENT,

Showing the quantity and value of Indian Corn, Corn Meal, and Rye Meal, exported from the United States to all countries, during the year ending June 30, 1849.

Whither Exported.	Indian Corn. Quantity. Bushs.	Indian Corn. Value. Dolls.	Corn Meal. Quantity. Bbls.	Corn Meal. Value. Dolls.	Rye Meal. Quantity. Bbls.	Rye Meal. Value. Dolls.
Swedish W. Indies	1,280	995	2 738	7 992	1,007	3,439
Danish W. Indies	2,850	1,778	28,645	85,753	525	2,154
Hanse Towns	69	56	....	....	....	....
Hanover	250	160	....	....	....	....
Dutch W. Indies	3,222	2,319	1,567	4.700	1,297	4,497
Dutch Guiana	....	....	219	631	....	....
Belgium	180	70	....	....	....	....
England	7.859,642	4,645,450	62 399	185 028	22	77
Scotland	345,316	214 845	1,773	5,321	....	....
Ireland	4,191,284	2,636,381	26,266	84,063	....	....
Gibraltar	6,505	2,994	....	....	....	....
Mauritius	593	423	....	....	....	....
Honduras	552	374	....	....	....	....
British Guiana	15,412	10.161	10 627	30,644	50	163
British W. Indies	197 044	117.705	99 863	284.065	3,497	12,191
Canada	49,621	20.265	1,734	3,868	....	....
British Am. Colonies	221,442	126,791	153,979	434,109	57,166	191.582
France on the Atlantic	....	....	1	4	....	....
French W. Indies	5 372	2,778	524	1,644	....	....
Mequelon & Fr. fisheries	....	....	25	78	....	....
French Guiana	40	28	....	....	20	68
Cuba	12,631	7,117	431	1,152	....	....
Other Spanish W. Indies	928	627	6 859	19,630	17	66
Madeira	93,823	59 072	300	804	532	1,985
Cape de Verds	520	340	....	....	....	....
Hayti	270	186	65	356	....	....
Mexico	223,506	100,596	....	....	....	....
Central Rep. of America	367	200	1,282	2,700	....	....
New Grenada	2,498	1,074	203	560	....	....
Venezuela	15,647	9.453	4.841	14,175	146	546
Brazil	500	366	210	711	....	....
Cesplatine Republic	2,085	1,402	35	105	....	....
Argentine Republic	....	....	....	....	451	1 480
Chili	....	....	168	430	....	....
West Indies generally	3,860	2.348	249	710	....	....
Africa generally	....	....	68	206	....	....
South seas & Pac. ocean	....	....	58	186	....	....
Total	13,257,309	7,966,369	405,169	1,169,625	64,830	218 248

Total value of Indian Corn and Corn Meal exported during the year ending June 30, 1849, $9,136,094; of this, $7,587,114 was exported to England, Scotland, and Ireland.

STATISTICS OF CALIFORNIA COMMERCE.

The California Courier publishes, on the authority of Col. Collier, the Collector at the port of San Francisco, the following aggregate of duties paid on foreign merchandise, from November 12th, 1849, to May 31st, 1850, together with a statement of arrivals, clearances, &c:

November 12th to December 31st, as per general account current - - -	$201,435 22
January 1st to March 21st - - -	268,981 66
April 1st to May 31st - - -	285,637 84
Total - - - -	$755,974 72
Sail vessels now in the harbor - -	623
Steamers - - - - -	12
Sail vessels at Sacramento City, and other places up the rivers - - -	140
Steamers - - - - -	8
Total - - - -	783
Of this number, there are foreign - -	120
Total American - - -	663

Since March 28th, 1850, to June 30th, the American arrivals are—Ships 72, barks 115, brigs 97, steamers 10, schooners 74; total in all, 368.

Foreign arrivals since the above date—Ships 26, barks 32, brigs 54, schooners 25; total in all, 137; grand total, 508.

Amount of tonnage at this time in the port of San Francisco - - - -	1,020,476
In towns and cities on the San Joaquin and Sacramento rivers - - -	100,000
Total foreign and American -	1,120,476
Of this amount there is now unemployed, at least - - - - - -	800,000
Leaving only employed on the whole Pacific and the bays and rivers flowing into it -	326,476

Statement showing the number and class of vessels built, and the tonnage thereof, in each State and Territory of the United States, for the year ending June 30, 1849.

DISTRICTS.	CLASS OF VESSELS.					TOTAL TONNAGE.	
	Ships.....	Brigs.....	Schooners..	Sloops and canal b'ts.	Steamers...	Total number of vessels built.	Tons & 95ths.
MAINE.							
Passamaquoddy,	6	9	7			22	4,325 04
Machias,	4	13	13	1		31	5,141 63
Frenchman's Bay,	3	4	21			28	3,459 57
Penobscot,	1	3	13	3		20	3,188 46
Belfast,	8	21	2			31	7,427 84
Bangor,		6	7	2	3	18	1,982 40
Waldoborough,	28	23	25	1		77	19,221 47
Wiscasset,	3	4	4			11	1,929 68
Bath,	37	12	6		2	57	20,240 11
Portland,	22	12	3	1		38	11,256 21
Saco,	1					1	449 44
Kennebunk,	6		3			9	3,600 00
York,				1		1	33 46
Total,	119	107	105	6	7	344	82,255 56
NEW HAMPSHIRE.							
Portsmouth,	8		4			12	6,265 89
Total,	–		–			—	
MSSSACHUSETTS.							
Newburyport,	6		4			10	3,067 61
Ipswich,			3			3	220 10
Gloucester,			16			16	1,107 84
Marblehead,			3			3	193 13
Boston,	20	5	5	1	1	32	13,307 94
Plymouth,	3		1			4	1,103 26
Fall River,	1	1	3			5	742 09
New Bedford,	1	1	3			5	481 73
Barnstable,	1		27	8		36	3,209 19
Edgartown,			1			1	84 39
Nantucket,	1		2			3	368 48
Total,	33	7	68	9	1	118	23,888 84
RHODE ISLAND.							
Providence,	3		2	2		7	1,868 29
Bristol,		1	2	1		4	599 31
Newport,		2				2	592 63
Total,	3	3	4	3		13	2,760 28

DISTRICTS.	CLASS OF VESSELS.					TOTAL TONNAGE.	
	Ships.....	Brigs.....	Schooners..	Sloops and canal b'ts.	Steamers...	Total number of vessels built.	Tons & 95ths.
CONNECTICUT.							
Middleton,			8	3	1	12	905 07
New London,	1		15	4		20	1,726 67
Stonington,			6	4		10	881 01
New Haven,	1	1	9	3		14	1,553 46
Total,	2	1	38	14	1	56	5,066 26
NEW YORK.							
Sackett's Harbor,			5		1	6	791 86
Oswego,	1		1	8		10	899 09
Niagara,				2		2	110 70
Genesee,			1			1	57 54
Buffalo,		1	2	2		5	1,789 72
Greenport,			6			6	581 45
New York,	12	7	44	145	17	228	37,933 04
Cape Vincent,	1		4		1	6	1,743 13
Cold Spring,			1			1	197 53
Total,	17	8	64	155	21	265	44,104 26
NEW JERSEY.							
Perth Amboy,			14	3		17	1,317 07
Bridgetown,		1	9	7		17	1,618 46
Burlington,			4	8		12	716 35
Camden,			4	8	1	13	973 22
Newark,			3	1	1	5	876 09
Little Egg Harbor,			5			5	654 32
Great Egg Harbor,			18			18	1,869 94
Total,		1	57	27	2	87	8,025 55
PENNSYLVANIA.							
Philadelphia,	3	2	26	102	9	142	13,741 06
Presqu'isle,			1		2	3	2,320 66
Pittsburgh,					52	52	7,946 01
Total,	3	2	27	102	63	197	25,007 73
DELAWARE.							
Wilmington,	1	5	3			9	1,001 17
New Castle,			12	2		14	879 19
Total,	1		17	5		23	1,880 36
MARYLAND.							
Baltimore,	9	8	41		5	63	12,199 66

DISTRICTS.	CLASS OF VESSELS.					TOTAL TONNAGE.	
	Ships.....	Brigs.....	Schooners...	Sloops and canal b'ts.	Steamers...	Total number of vessels built.	Tons & 95ths.
Oxford,			27			27	1,716 64
Vienna,	1		28			29	2,106 1
Annapolis,			1			1	52 10
Total,	9	9	126		5	152	18,462 93
DISTRICT OF COLUMBIA.							
Georgetown,				22		22	609 20
Total,				22		22	609 20
VIRGINIA.							
Norfolk,		2	9		2	13	1,702 05
Richmond,	1		1			2	426 43
Yorktown,				2	1	3	109 18
Tappahannock,			1			1	33 19
East River,			8			8	373 05
Accomack Court-house,			7			7	246 10
Yeocomico,			3			3	114 80
Cherrystone,			1			1	89 75
Total,	1	3	32	1	2	38	3,094 65
NORTH CAROLINA.							
Wilmington,	1		3	4		5	397 36
Newbern,			4			4	586 01
Washington,		1	2	1		4	287 64
Edenton,			2			2	87 09
Camden,			3	1		4	142 29
Beaufort,			5			5	236 40
Plymouth,			3			3	223 40
Ocracoke,			2			2	72 08
Total,	1	1	24	3		29	2,032 37
SOUTH CAROLINA.							
Charleston,			6		2	8	655 57
Total,			6		2	8	655 57
GEORGIA.							
Savannah,		1			1	2	756 37
Total,		1			1	2	756 37
FLORIDA.							
Key West,			1			1	119 88
Total,			1			1	118 88

DISTANCES.	CLASS OF VESSELS.					TOTAL TONNAGE.	
	Ships	Brigs	Schooners	Sloops and canal b'ts.	Steamers	Total number of vessels built.	Tons & 95ths.
ALABAMA.							
Mobile,			2	1		3	106 54
Total,			2	1		3	106 54
LOUISIANA.							
New Orleans,		1	10	3	2	16	1,590 18
Teche,			2	1	2	5	165 30
Total,		1	12	4	4	21	1,755 48
TENNESSEE.							
Nashville,					2	2	242 79
Total,					2	2	242 78
KENTUCKY.							
Louisville,					34	34	8,423 33
Total,					34	34	8,423 33
MISSOURI.							
S. Louis,				8	11	19	2,886 51
Total,				8	11	19	2,886 51
ILLINOIS.							
Chicago,	1	3	9			13	2,210 84
Total,	1	3	9			13	2,210 84
OHIO.							
Cuyahoga,		1	4	5	4	14	2,252 67
Sandusky,		1	5	3	2	11	2,088 53
Cincinnati,					38	38	8,475 67
Total,		2	9	8	44	63	12,816 92
MICHIGAN.							
Detroit,			15	1	8	24	5,067 04
Michilimackinac				1		1	81 62
Total,			15	2	8	25	5,148 66

ALLEN H. HALL, *Register.*

TREASURY DEPARTMENT,
Register's Office, December 1, 1849.

Comparative view of the registered and enrolled tonnage of the United States, from 1815 *to* 1849, *inclusive.*

Years.	Registered tonnage	Enrolled and licensed tonnage.	Total tonnage.
1815	854,294 74	513,833 04	1,368,127 78
1816	800,759 63	571,458 85	1,372,218 53
1817	809,874 70	590,186 66	1,399,912 41
1818	606,088 64	619,095 51	1,225,184 20
1819	612,930 44	647,821 17	1,260,751 61
1820	619,047 53	671,118 64	1,280,166 34
1821	619,896 40	679,062 30	1,298,958 70
1822	728,150 41	696,548 71	1,324,699 17
1823	639,920 76	696,644 87	1,336,565 68
1824	669,972 60	719,190 37	1,389,163 02
1825	700,787 08	722,323 69	1,423,110 77
3826	737,978 15	796,210 68	1,534,189 83
1827	747,170 44	873,437 34	1,620,607 78
1828	811,619 34	928,772 52	1,741,391 87
1829	650,142 88	610,654 88	1,260,797 81
1830	576,675 33	615,311 10	1,191,776 43
1831	620,451 92	647,394 32	1,267,846 29
1832	686,989 77	751,460 39	1,439,450 21
1833	750,126 72	856,123 22	1,606,149 94
1834	857,438 42	901,468 67	1,758,907 14
1835	885,821 60	939,118 49	1,824,940 14
1836	897,774 51	984,328 14	1,882,102 65
1837	810,447 29	1,086,238 40	1,896,685 69
1838	822,591 86	1,173,047 89	1,995,639 80
1839	834,244 54	1,262,234 27	2,096,478 81
1840	899,764 76	1,280,999 35	2,180,764 16
1841	945,803 42	1,184,940 90	2,130,744 37
1842	975,358 74	1,117,031 90	2,092,390 69
1843	1,009,305 01	1,149,297 92	2,158,601 93
1844	1,068,764 91	1,211,330 11	2,280,095 07
1845	1,095,172 44	1,321,829 57	2,417,002 06
1846	1,131,286 49	1,431,798 32	2.562,984 81
1847	1,241,312 92	1,597,732 80	2,839,045 77
1848	1,360,886 85	1,793,155 00	3,154,041 85
1849	1,438,941 53	1,895,073 71	3,334,015 29

JOURNAL OF INTERNAL IMPROVEMENTS.

CANALS IN THE UNITED STATES.

Having met with an article that purports to be taken from the "Dry Goods Reporter," in which it is stated that there are 7,000 miles of canal in the United States, we deem it our duty to correct the error by furnishing our patrons with a list of the canals in the several States of the Union. The following list is taken from "Colton's United States Guide Book," published in 1850, and may be relied on, we think, as embracing all the canals now in use in this country.

It is difficult to appreciate the inducements that lead individuals to publish such egregious errors as we frequently find in the most respectable journals in the Union. We can scarcely admit that such errors originate in ignorance: for nothing appears more rational than to suppose that one whose philanthropy impelled him to labor for the enlightenment of others, would first of all, store his own mind with a correct knowledge of those subjects which he proposes to teach. And hence, we are sometimes led to suspect that the authors of these extraordinary productions have some individual interest to subserve, or favorite theory to sustain, and draw upon their imagination for the facts necessary to answer their purpose, trusting to escape detection through the ignorance and credulity of their readers. Indeed they incur but little hazard in publishing the most palpable errors: and, in general, exaggeration makes their facts the more attractive, and is calculated to insure their circulation in the public prints.

MAINE.

From Cumberland and from Portland to Sebago pond - - - - - -	20 1-2
From Sebago pond to Long pond, via Sango river improvement - - - -	30
Total number of miles - - -	50 1-2

NEW HAMPSHIRE.

There are five short canals in N. H. Total length	12 6-

VERMONT.

There are 3 short canals in Vermont. Total length	1 1-4

MASSACHUSETTS.

Middlesex canal, from Charles river to the Merrimac	27
Pawtucket canal, from Lowell to Chelmsford -	1 1-2
Blackstone canal, Worcester to Providence, (not in use,) [See Rhode Island,] - -	45

Hampshire and Hamden canal - - -	22	
Montague Falls canal - - - -	3	
South Hadley canal - - - -	2	
Total number of miles - - -	100	1-2

RHODE ISLAND.

Blackstone canal, [this work is also placed among the works of Massachusetts,] from Providence to Worcester, (not in use,) - - -	45	

CONNECTICUT.

Enfield canal - - - - -	5	1-2
Farmington canal, from New Haven to Massachusetts line - - - - -	56	
Total - - - - -	61	1-2

NEW YORK.

Erie canal, from Albany to Buffalo - -	364	
Champlain canal, connecting Erie canal with Lake Champlain - - - - -	73	
Chemung canal, connecting Mohawk and Susquehanna rivers, Utica to Binghamton - -	77	
Black river canal, from the falls on Black river, with the river improvement 77 1-2 miles, and a feeder from Boonville to Black river, 10 miles	87	1-2
Oneida Lake canal - - - -	8	
Oswego canal, from Syracuse to Oswego - -	38	
Cayuga and Seneca canal, from Montezuma to Geneva - - - - -	21	
Crooked Lake canal - - - -	8	
Genesee Valley canal, from Rochester to Olean -	52	
Chemung canal, from Knoxville to Seneca Lake -	33	
Feeder to Fairport - - - -	16	
Delaware and Hudson canal, from Eddyville, N. Y., to Rosendale, Pa., - - - -	108	
Total miles in New York - - -	905	1-2

NEW JERSEY.

Morris canal, from Jersey City, to Easton, Pa. -	102	
Delaware and Raritan canal, from New Brunswick to Bordentown 43 miles; feeder from Trenton to Saxtonsville, 23 miles - - -	66	
Total miles in New Jersey - - -	168	

PENNSYLVANIA.

Pennsylvania canal, main division to Hollidaysburg	172	
Western division to Pittsburgh - - -	104	
Susquehanna division to Northumberland -	40	
North Branch division, from Northumberland to Wyalusing, in the anthracite coal region -	124	
West Branch division, from Northumberland to Farrandville - - - -	75	
Delaware division, from Bristol to Easton -	60	
Beaver and Erie canal, from Beaver to Erie -	136	
French Creek feeder - - - -	45	
Schuylkill Navigation canal, from Fairmount to Port Carbon - - - - -	108	
Lehigh Navigation Company, from Easton to Stoddardsville - - - - -	84	
Union canal, from Reading to Middletown -	82	
Susquehanna or Tidewater canal, from Wrightsville to Havre de Grace, Md. - -	45	
Total miles in Pennsylvania - -	1075	

DELAWARE.

Chesapeake and Delaware canal - - -	14	

MARYLAND.

Chesapeake and Ohio canal, from Alexandria to Cumberland - - - - - -	191	

VIRGINIA.

James River canal, from Richmond to Lynchburg	146	
Dismal Swamp canal - - - -	23	
Total miles in Virginia - - -	169	

NORTH CAROLINA.

Weldon canal, from Weldon to Blakely - -	12	
Clubfoot and Harlan canal - - -	1	1-2
Total in North Carolina - - -	13	1-2

SOUTH CAROLINA.

Santee canal, - - - - -	22	
Wenyaw canal, - - - -	7	1-2
Catawba canals (five in number), - -	11	1-2
Total miles in South Carolina, - - -	41	

GEORGIA.

Savannah and Ogeechee canal, - - -	16	
Brunswick canal, - - - -	12	
Total in Georgia - - - -	28	

ALABAMA.

Muscle Shoals canal, - - - -	35 1-2
Huntsville canal, - - - - -	16
Both these canals in Alabama have been abandoned.	
Total miles, - - - - -	51 1-2

LOUISIANA.

Orleans Bank Canal, from New Orleans to Lake Pontchartrain - - - -	4 1-2
Barataria canal, from opposite New Orleans to Lake Terre Bonne, - - -	26
Lake Veret canal, - - - -	8
Total miles in Louisiana, - -	38 1-2

KENTUCKY.

Louisville and Portland canal, - - -	2 1-2

OHIO.

Ohio canal, from Portsmouth to Cleveland, -	309
Walhonding canal, connects with the Ohio canal at Roscoe, - - - - -	25
Hocking canal, connects with the Ohio Canal at Carroll, - - - - -	56
Miami Canal from Cincinnati to junction on the Wabash and Erie Canal - - - -	181
Warren county canal, - - - -	19
Sidney Feeder, - - - - -	13
St. Mary's Feeder, - - - -	11
Muskingum Improvement, - - -	91
Sandy and Beaver canal, - - -	81
Wabash and Erie canal, Ohio division, - -	88
Total miles in Ohio, - - -	874

INDIANA.

Wabash and Erie Canal, Indiana division, (in use)	271*
White Water canal, from Lawrenceburg to Cambridge, - - - - - -	68
Total in Indiana, - - - -	339

ILLINOIS.

Illinois and Michigan canal, from Peru to Chicago,	100
Total number of miles of Canal in use in the United States in 1850 - - - - -	4136.35.

*When completed, the total length of the Wabash and Erie Canal will be four hundred and sixty-seven miles.

WABASH CANAL.

We have taken some pains to ascertain the progress now being made in the construction of the Evansville division of the Wabash and Erie canal. We had the pleasure, about the first of June, of announcing that an important division of forty-two miles, between Terre Haute and Point Commerce, had been completed and the water let into it. We have now a continuous canal—the whole line in fine navigable order—from Toledo to Point Commerce, Indiana, a distance of three hundred and fifty-two miles. Point Commerce is one hundred and ten miles from Evansville on the Ohio river, the southern terminus of the Wabash and Erie canal—the longest canal in the United States. The southern division, from Point Commerce to Evansville, a distance of one hundred and ten miles, is in rapid process of construction.

A division of seventeen miles, extending to Newbury, will be opened by the first of November next.

Another division of twenty-three and a half miles, extending to Maysville, on the road leading from Louisville to Vincennes, will be opened by the fall of 1850.

While the canal was owned by the State of Indiana, nineteen miles of it next to Evansville was finished. Some three or four years since, we traveled on the tow-path some distance, and recollect that it then appeared in a good state of repair. The portion unfinished (though considerable work has been expended upon it) lies between that division and Maysville. We learn from the Chief Engineer, Jesse L. Williams, Esq., now having charge of the work—finished as well as unfinished portions of the canal—that he intends to pass loaded boats through the whole line from Toledo to Evansville, *within two years from this date.* [*Toledo Republican.*

JOURNAL OF MINING AND MINES.

LEAD MINES IN SOUTH-WEST MISSOURI.

The following communication from our highly valuable correspondent, William S. Moseley, Esq., will be read with much pleasure by all who desire to see the mineral wealth of our State developed. It is remarkable how little the people of Missouri know of the resources of their own State, or of the pursuits of those residing out of their immediate neighborhoods. We have made many inquiries in regard to what was doing at the lead mines in the south-west, but the following

letter affords the first and only reliable information that we have been able to obtain from that quarter:

NEW MADRID, MO., *September* 12, 1850.

To the Editors of the Western Journal:

GENTLEMEN: Knowing the deep interest you feel in regard to the development of the natural resources of our giant young State, I have taken the liberty of saying something about a recent discovery of very rich and valuable lead ore in the south-western extremity of our State, where I spent the past summer. Messrs. Moseley, Oldham & Co., are working a very valuable lead, about five miles west of Neosho, on Shoal creek, sixteen miles above the Grand falls, as it is called, and about twenty-five miles from Grand river, a very good navigable stream, as far as it has been tried—there having been a number of flatboats taken out of it in the past three years. This company have taken out with six hands, since the 1st of April up to the 20th of July, about 100,000 pounds of ore from two shafts, which have been sunk to the depth of sixty feet. They have now nearly completed a druming furnace, which will be in successful operation by the first of October, and which will smelt 3000 pounds per day. Messrs. Tingle & McKee, sixteen miles north-west of Moseley's diggings, near a stream called Turkey creek, have made a fine discovery, and have raised about 50,000 pounds, and are now smelting in a log furnace. Messrs. Murphy & Co. have struck a fine lead, on Turkey creek, about five miles above Tingle & McKee's, and have taken out 25,000 pounds. The ore found at Moseley's mines has been assayed in your city, and it yields 85 per cent. Several valuable deposits of coal have been found in Newton county—one about four miles from Moseley's mines, and another six miles from Neosho. From the specimens of ore from Tingle & McKee and Murphy & Co's mines, I believe them to be of equal richness to the ore assayed.

The only obstacle to the rapid development of the mineral resources of south-western Missouri, is remoteness from navigation, or at least, certain navigation. You are aware that south Grand river flows entirely through the Indian country, emptying into the Arkansas about five miles below Fort Gibson. If that small wedge of land belonging to the Senecas, Seneca Shawnees, and Quapa Indians, lying west of Newton county, was attached to the State, it would add greatly to the growth of that part of our State, and rapidly increase the growth and development of one of the finest sections of south-western Missouri. A fine flourishing border town would grow up; steamboat navigation of Grand river would take the place of road wagons; and thousands of acres, now lying waste, would soon yield up their hidden treasures. From actual inspection and

observation, I am satisfied that in the course of time, south-western Missouri will be one of the richest mineral countries in the State. It is the intention of the different mining companies in Newton county to charter a steamer to come up to the mouth of Cowskin (in the Seneca country) next spring, and carry off their lead. I will keep your readers advised of the progress of the mining business of south-western Missouri.

Your ob't serv't,

WM. S. MOSELEY.

LEAD MINES IN NORTH ARKANSAS.

We have already noticed the discovery of a vein of lead ore five miles in extent, in the vicinity of Batesville; but we are informed by a correspondent in that region, that the mineral is being found in almost every hill on the Black and White rivers. Our correspondent states that he has visited some of the localities, and was much astonished at the indications. Near Batesville, the limestone for miles is filled with the ore. Preparations are making to commence working these mines immediately.---*State Gazette.*

SOUTH-WEST AND ARKANSAS MINING COMPANY.

The mines of this company, near this city, (Little Rock,) continue to prove extremely rich in the argentiferous lead ore. Since May last, upwards of 150,000 lbs. of mineral has been prepared and sent forward to market.

The mining operations will, for the present, be confined more immediately to sinking the main shaft at the diggings, (which is now ninety feet,) through the black slate, which is found at this depth. As the weather is now very favorable for mining operations, it is the determination of the company to increase the force now engaged at the mines, and vigorously to prosecute the work.---*State Gazette.*

NEW COAL BED---VALUABLE DISCOVERY.

During the past week an inexhaustible bed of *cannel*, or *candle* coal, was discovered on Cavanaugh's Creek, on the Fulton road, and about two miles east of this place. Mr. John B. Gordon, the proprietor, is well satisfied, from examinations given the mine, that the quantity is immeasurable, and the quality excellent. The discovery of a deposit of such coal, so near this place, is the next thing to a gold mine. This is the first coal of the kind found in this county, although it abounds in great quantities in Callaway, Cole and Moniteau. A specimen can be seen at our office.---*Missouri Statesman.*

BITUMINOUS COAL IN WISCONSIN.

The Fond du Lac Journal chronicles the discovery of veins

of coal in the town of Taychedah, on "the Ledge." It says:

"The coal on applying a match catches readily, and burns freely. This coal was discovered in the crevice of the Limestone; and Mr. M. feels confident that further investigations will exhibit it in greater quantities---at least persons familiar in coal regions, state that the geological formation of the immediate vicinity is favorable. We hope that such may be the case. It would be an acquisition to our mineral wealth hitherto unlooked for."

NAVIGATING ST. PETERS' RIVER.

The steamer Anthony Wayne performed this feat on the 28th ult,---ascending the stream 60 miles from its mouth, with apparent ease. We learn from the Minnesota Pioneer, that the scenery along this river is beautiful beyond description---the country itself charming as a paradise. Several Indian villages were passed, and a few visited, during the excursion.

The company on board, some three hundred in number, were highly gratified at the excursion; but, from some unaccountable reason, they were put on short allowance of victuals.

The steamer Lamartine promises to perform the same feat on her next trip, not forgetting the needful in the way of eatables.---*Dubuque Express.*

LINE OF MAIL STAGES TO SANTA FE.

We are gratified that the Post Office Department has at length established this line upon a footing that promises to be successful in the end; though we have heard that the stages on the first trip encountered a good deal of difficulty on account of the failure of their teams.

The Missouri Commonwealth, published at Independence, gives the following account of the departure and equipment of the first mail stage from that place westward. The first train left, we believe, on the 1st of July last.

SANTA FE LINE OF MAIL STAGES.

We briefly alluded, some days since, to the Santa Fe line of mail stages, which left this city on its first monthly trip on the first instant. It was our intention at that time to have noticed this matter as its novelty and importance demanded, but want of leisure prevented. This is an important extension of mail service, and will be of untold utility, both to New Mexico and

the States. But we simply took up our pen to give our friends in other parts of the country, some idea of the *preparations* which have been made by the contractors, Messrs. Waldo, Hall & Co., to convey the mail safely through the Indian country—an undertaking which must seem hazardous, after the many murders that have been perpetrated recently by hostile tribes. The stages are got up in splendid style, and are each capable of conveying eight passengers. The bodies are beautifully painted, and made water-tight, with a view of using them as boats in ferrying streams. The team consists of six mules to each coach. The mail is guarded by eight men, armed as follows: Each man has at his side, strapped up in the stage, one of Colt's revolving rifles; in a holster, below, one of Colt's long revolving pistols, and in his belt a small Colt revolver, besides a hunting knife; so that these eight men are prepared, in case of attack, to discharge *one hundred and thirty-six* shots without stopping to load! This is equal to a small army, armed as in olden times, and from the courageous appearance of this escort, prepared as they are, either for offensive or defensive warfare with the savages, we have no apprehensions for the safety of the mails. The whole of the equipment for this expedition is of our own city manufacture, except the revolvers.

The enterprising contractors have establishhd a sort of depot at Council Grove, a distance of 150 miles from this city, and have sent out a blacksmith, a number of men to cut and cure hay, with a quantity of animals, grain and provisions; and we understand they intend to make a sort of traveling post there, and to open a farm. They contemplate, we believe, to make a similar settlement at Walnut Creek next season.

Two of their stages will start from here the first of every month. The contractors are amongst our most responsible and wealthy citizens, and the firm is composed, as we understand, of Dr. David Waldo, Jacob Hall, Esq., and William McCoy, late Mayor of our city.—*Missouri Commonwealth.*

NAVIGATION OF THE UPPER MISSOURI.

We extract from an exchange paper the following account of the voyage of the steamer El Paso to the mouth of Milk river, a tributary of the Missouri; but if the maps are to be relied on, Milk river is much less than 300 miles from the mouth of the Yellow Stone:

Extraordinary Voyage—From Milk River.—Probably few readers know the whereabouts of Milk river. It is "right away in the Indian country," three hundred and fifty miles, more or less, above the mouth of the Yellow Stone river; yet, there has steam penetrated; the steamer El Paso, of St. Louis,

having been eight miles up the stream, conveying men and goods to the forts among the Indians. She made the trip there and back in fifty-six days.

The El Paso left St. Louis on her upward trip to the head-waters of the Missouri, at 12 M., May 6th, 1850.

On the 11th of June a considerable quantity of floating ice was met in the river. We experienced much difficulty in getting over the sand-bars, and on the day following landed at Fort Clark, where we took on board a quantity of corn.

A Mackinaw boat, in tow of the El Paso, was sunk on June the 18th, at Elk Horn, Pyramid Prairie. Mr. Honore Picot, for many years commander or superintendent at Fort Pierre, here went ashore with a number of his men, and collected a a large quantity of elk horns, which have been brought down by the El Paso. At 2 o'clock, P. M., of the same day, we passed the point where the steamer Assineboin had wintered some years ago—the highest point ever before or since attained by steamboats. The Assineboin, it is remembered, was frozen, and before the end of winter entirely broken up.

On the 20th June we got eight miles above the mouth of the Milk river, being about three hundred and fifty miles above the mouth of the Yellow-Stone. Our freight and the traders were all landed here. A board bearing the following inscription, was fixed on a tree by the passengers: "The steamer El Paso landed at this point on the 20th June, 1850—thirty-five days from St. Louis; John Durack, Captain." We commenced our downward trip the same day. In the latter days of the journey, we saw on either shore large bands of buffaloes, deer, and elk, and succeeded in killing many at different times.

PHYSICS OF THE MISSISSIPPI RIVER.

We are indebted to Professor FORSHEY for a copy of his "Memoir of the Physics of the Mississippi River"—a document containing much interesting matter. We shall give it a place in the next number of the Western Journal.

Saint Louis Furniture Store.

WM. M. HARLOW, proprietor. Manufactures and keeps constantly on hand every variety of household furniture, matresses, window blinds, willow ware, &c., &c.

Also, manufactures to order every article in his line, with despatch. Orders from abroad promptly attended to, and goods carefully packed. All goods warranted, as recommended.

New Warehouse, No. 88 Second street, between Olive and Locust streets, St Louis, Mo.

Clothing at Wholesale.

ARCHIBALD YOUNG & CO., 99 Main street, St. Louis, Mo. Wanzer Minor & Co, 126 Pearl street, New York, Moses Wanzer and Henry J. Minor, New York, Archibald Young. St. Louis.

N B.—We manufacture all of our own goods, and sell at the lowest possible prices.

ROLLIN CLARK, JOHN RENFREW, } PHILANDER BRALEY, ALEXANDER CROSIER.

Eagle Foundry and Engine Shop.

NORTH west corner of Main and Biddle streets. Manufacturers of all kinds of machinery, boilers and sheet iron work, portable circular saw mills always on hand, all orders executed with fidelity and despatch.

A splendid fortune may be gained by an outlay of £10 or £5.

Metropolitan Portrait Club.

Offices—88, Albany road, London, England.

THE Directors beg to announce that there will be drawn for a grand series of portraits of all horses entered for the forthcoming Great Derby Race.

The drawing will be conducted upon those honorable principles which have hitherto given so great satisfaction, and secured to the above association such extenstve patronage; and that while the past success and high estimation in which the club is held are subjects of pleasing congratulation to the projectors, they encourage endeavors for a still further development of their plan. For the future, therefore, the number of prizes will be extended to the portraits of all horses that are entered for each particular race.—Non-starters as well as winners and starters. The following list is now open:

5,000 members to each class. First class £10, second do. £5, third do. £1.

Parties can have one or more shares in each or either of the different classes.

Those members who draw the portraits of first, second, and third horses, the other starting horses, also those that do not start (but which are entered for the race), will receive the following prizes. The drawing will take place ten days before the races.

	Portrait of first horse.	Do. Second do.	Do. Third do.	Divi'ed am'gst the portraits of Starters.	Do. Do. non starters
First class	£20,000	£10,000	£5,000	£5,000	£10 000
Second do.	10,000	5,000	2,500	2,500	5,000
Third do.	2,000	1,000	500	500	1,000

The number of prizes to be distributed in each class are 209, that being the number of horses entered for the race. All letters to contain a remittance drafts, bank-notes, &c., addressed and made payable to the managing director.

JOHN BURRIDGE, Esq, 88, Albany Road, London, England.

Numbers forwarded immediately on receipt of a remittance. Full particulars of the race will be sent with the fortunate numbers to each subscriber, so that he may know his position and whether or not he be one of the fortunate. Office commission 7 1-2 per cent., to be deducted from the above prizes.

N. B.—Lists open for the St. Leger same as the above.

HUDSON B. BRIDGE. HARRISON P. BRIDGE.

BRIDGE & BROTHER,

No. 158 Main Street, St. Louis, Mo.,

MANUFACTURERS of Pierce's Patent "American Air-Tight," "Empire" and "Victory" Premium Cooking Stoves, and every variety of Wood and Coal heating Stoves, dealers in Tin Plate, Copper, Sheet Iron, Iron Wire, Tinners' Tools, Machines, also, manufacturers of Jewett's Improved Patent Cary Ploughs.

J. BEATTNER,

MATHEMATICAL and Surgical Instrument maker, Dealer in Guns, Pistols and Sporting Materials, No 68 North Second Street, between Pine and Olive, St. Louis, Mo., Manufactures and has always on hand; Surveyors Compasses and Chains, Levelling Instruments, Theodolite Pocket Compasses, Spy-glasses, Barometers, Thermometers, Drawing Instruments, Spectacles, Ivory and Gunter's Scales and Protractors, Hour and Half Hour Glasses, Microscopes and Magnifying Glasses, Hydrometers of silver and glass, Hydrometers for acids and salts, Magic Lanthorns, Electrical Machines, &c., also— Surgical and Dental Instruments; Pocket, Dissecting, Cupping and Self-injecting Cases; Taylor's Shears, all sizes, Syringes, large and small, Scarificators, Lancets; Forceps; Turnkeys; Large Scales and Weights, for Druggists; Prescription Scales on Stands; Revolvers, Guns, Pistols, Powder Flasks, Game Bags, &c., ☞ All the above Instruments repaired at short notice in the best manner.

CHARLES T. WILGUS. JOHN S. WATSON.

WILGUS & WATSON,

HOUSE, Sign, Steamboat & Ornamental Painters, Glaziers, Paper Hangers, Whiteners and Wall Colorers, No. 52 and 54 Pine Street, Saint Louis. Also, Dealers in American and French Paper Hangings, in great variety and of superior quality; White Lead, Oil, Turpentine, Varnishes, Window Glass, Putty, and every variety of Paints, wholesale and retail.

WILSON & BROTHERS,

WHOLESALE DEALERS IN HARDWARE, corner of Main and Olive streets, St. Louis, Mo.

C. BENEDICT, Danbury, Conn. D. PEARCE, St. Louis, Mo.

DAVID PEARCE, & CO.,

MANUFACTURERS and wholesale dealers in Hats, Caps and Straw Goods, No. 120 Main street, St. Louis, Mo.

HEWITT & STEINACKER,

SADDLE, Harness and Trunk Manufacturers, wholesale and retail, No. 67 Fourth street, corner of Pine, opposite the Planters House, St. Louis, Mo.

M. B. COX. WM. M. SIMPSON. GEO. BURNET, Jr

M. B. COX & CO.,

WHOLESALE dealers in Boots and Shoes, Shoe Findings, Hats, Caps and Bonnets, Artificial Flowers, Umbrellas and Parasols, Pongee and other Silk Handkerchiefs, Hosiery and Gloves, Trimmings, Small Wares, and Variety Goods, No. 91 Main street, east side, between Locust and Olive, St. Louis, Mo.

J. A. ROSS,

SCALE AND SPUR Factory, Brass Foundry and Machine Shop, 202 north Second street, between Morgan and Cherry sts., St. Louis, Mo. Constantl on hand and manufactured to order, Platform Scales of all sizes, Counter and Druggist Scales, Flour, Floor, Hay and Car Scales. Also, Beam Scales, of Iron or Brass. Scales repaired with neatness and despatch. Spurs, for Dragoons and others, and Brass Castings furnished on short notice.

P. WONDERLY,

MANUFACTURER of Copper, Tin and Sheet Iron Work—such as Copper Pipes for Steamboats and Distilleries, Soda Fountains, Copper Kettles, Well and Cistern Pumps, and every other article in his line of business; No. 233 Main street, south east corner of Cherry, St. Louis, Mo. He also manufactures and keeps constantly on hand, Premium Steamboat Cooking Stoves. Tinware always on hand, wholesale and retail.

Great Western Clothing Emporium!

WHOLESALE AND RETAIL,

No. 124 *and* 126 *Second street, corner of Vine.*

W. L. & J. BIGELOW & Co., St. Louis, Mo.

BAKER, NELSON & Co , 51 Cedar street, New York.

Fallon & Wright,

CARRIAGE manufacturers and dealers, No. 90, Fifth street, between St. Charles and Locust, are constantly manufacturing, and have on hand, all styles of carriages, which they will sell on the most reasonable terms. They flatter themselves from the experience they have had in the business, to be able to furnish as good an article as can be bought in any market. Citizens and strangers are requested to call and examine for themselves. All carriages made by us are warranted to be as represented, or the money refunded. WESLEY FALLON,
JAS. A. WRIGHT.

John Mullery,

PREMIUM Horse Shoer, in the alley, opposite the Post Office, will as usual pay particular attention to the various diseases affecting the feet of horses, and will guarantee to give general satisfaction in either of the above departments.

Fruit Trees and Shrubbery,

For sale by JOHN SIGERSON & BROTHERS, at their fruit farm and nursery. This establishment is located seven miles South of St. Louis, Mo. There are Omnibus Coaches running daily from the City within one half mile of the establishment. The Nursery and Gardens are open at all times (Sundays excepted) for the reception of visitors. Horticulturists and Amateurs are respectfully invited to visit the establishment and examine for themselves. In directing the attention of the public to their nursery, they would remark that one of the firm, (Mr. James Sigerson,) has been engaged in the above business for the last twenty five years; during that time he has tested many of the varieties now growing. This, with the assurance on their part of an intention to increase the number of their trees, as well as to add to their assortment from year to year, furnishes a strong guarantee to persons wishing to make choice selections of fruit, that they can always be supplied. The r prices for trees will be as reasonable as at any similar establishment East or West, and when desired, trees will be delivered free of charge in the city or on steamboats; packed in good order for their destination.

☞ All letters addressed to John Sigerson, St. Louis, or to James Sigerson, Carondolet, will meet with prompt attention.

JOHN SIGERSON & BROS.

J. BUNDING. B. VOIGT.

Bunding & Voigt.

WHOLESALE dealers in drugs, chemicals, paints, oils, dye-stuffs, window glass, glassware, &c., &c. No. 100 Main street St. Louis, Mo.

P. Hayden,

(SUCCESSOR TO P. WILSON & CO)

IMPORTER and manufacturer of saddlery, hardware, carrriage trimmings, saddle trees, hog skins, skirting, harness and bridle leather, wood and iron hames, &c. 47 Second street, (east side, between Pine and Olive streets,) St. Louis, Mo. Manufacturing the greater portion of the articles in my line, and importing the remainder, my advantages are superior to *any house in the trade.*

M. PAWLEY. H. B. HAWKINS

PAWLEY & HAWKINS,

MANUFACTURERS OF FIRE PROOF VAULTS, Safes, Iron Window Shutters and Doors, cast and wrought iron Railings, and all kinds of ornamental iron work. Also, heaters for public and private buildings.

In the manufacture of Iron Railing, either wrought or cast, over five hundred designs in their possession may be examined, embracing all the most beautiful patterns of the eastern countries, public and private buildings.

Every article in their line, made with despatch; and warran'ed equal to any manufactured in the United States. No. 41 Third street, St. Louis, Mo.

Doan, King & Co.,

WHOLESALE Dry Goods dealers, 131 and 133, Main street, St. Louis. Job P. Doan, St. Louis. Wylley King, do., Richard Bigelow, New York.

Edward Mead,

IMPORTER and wholesale and retail dealer in watches, jewelry, cutlery, guns, pistols and fancy goods, No. 83, north Fourth street, first block north of Planters' House, east side, St. Louis, Mo.

Crow, McCreery & Co.,

WHOLESALE dealers in Dry Goods, No. 71 Main street, St. Louis, Mo. Wayman Crow, Phoceon R. McCreery, Wm. H. Barksdale, Wm. A. Hargudine, Chas. D. Appleton.

Woods, Christy & Co.,

WHOLESALE dealers in Dry Goods, No. 75 Main street, St. Louis, Mo James Woods, William T. Christy, James C. Christy, Robert K. Woods.

Protect Your Property.

HAVING made an important improvement in the application of Blake's Slate Paint, for which I am obtaining Letters Patent, I am prepared to do any amount of work, in the roofing line, or to furnish any person with the slate, in sheets or rolls, containing from 2 to 600 feet in a roll; and any person can lay it over his roof himself. Farmers and merchants can have their warehouses, barns and dwellings rendered perfectly fire proof by this means. I charge $5 50 per square of 100 feet. In building, nearly one fourth of the entire cost may be saved by having the roofs flat. The gable walls and steep roof being dispensed with if thought best; thus making the cost of a roof of my slate less than even shingles; and one half less than Welsh slate, or iron. I can do work for persons out of the city if desirable, provided the distance is not too great from the rivers. Persons wishing to embark in the roofing business, can buy the right to any territory they wish, at low rates; and are sure to make money if they are industrious. I am prepared to fill all orders that may present for doors, sash, blinds, flooring, &c., at lower rates than any one in the west. No order will be filled without the cash. Any particular form of sash or doors made to order. Manufacturers, as usual, supplied with any kind of machinery. Patents secured. Engraving done.

Blake's slate paint always on hand, in any quantity. Letters, post paid will be attended to. No. 65 Locust street, St. Louis, Mo.

JOSEPH E. WARE.

Washington Foundry.

CORNER of Second and Morgan streets, St Louis, Mo. We are prepared to fill with dispatch, and to fit up in superior style, all orders in the Foundry and Machine business, such as steam engines, mill work, mill castings, railroad cars, wheels for coal trucks, lard and soap kettles of all sizes, press screws, &c., made to order at short notice. Wool carding machines, shearing machines, and a large and superior stock of machine cards, which we warrant equal to any in the Union.

All orders from the country will meet with prompt attention.

J. T. DOWDALL & CO.

GLOVER & CAMPBELL,

Late of Palmyra, Mo., Attorneys at Law,

SAINT LOUIS.

John C. Meyer,

Dealer in Hides, Leather, Oil and Findings,

No. 88 North Main Street, St. Louis.

H. W. LEFFINGWELL, Notary Public. R. S. ELLIOTT, Com'r of Deeds.

Leffingwell & Elliott,

REAL ESTATE Dealers, Auctioneers and Conveyancers, No. 123 Chesnut street, St. Louis, Mo. Real Estate sold on comm ssion, at private sale, or auction. Also, Deeds of all kinds written, and acknowledgments taken. Maps of the city and additions, to be seen at the office, and information given free of charge. Surveying done promptly and correc ly.

Charless & Blow,

NO. 70 and 72, Exchange Building, St. Louis, Mo., Importers and dealers in drugs, medicines, oils, paints, dye stuffs, perfumeries, window glass, glassware, &c.

O. W. Jerome,

WHOLESALE and retail dealer and manufacturer of Cabinet Furniture, chairs, bedsteads, &c., Nos. 44, 46 and 48, Olive street, opposite the Monroe House, St. Louis, Mo.

Sligo Book Store and Paper Warehouse.

AMOS H. SHULTZ, No. 136, north Main street. St. Louis, opposite the Bank. Wholesale dealer in books, paper and stationery.

THE undersigned takes the liberty of informing you that he has removed his place of business to Olive street, a few doors above Main, south side, in the Exchange Building, and three doors above Messrs. E. W. Clarke & Co.'s Banking House, where he is now opening, and will continue to receive during the Spring months, a large and full assortment of the most

Fashionable Styles of Goods,

In his line, for gentlemen's wear; and where he will be pleased to see his old friends and customers, and their friends w th them; and assures those who may favo(him with their patronage, that they shall receive his personal attention, and his best efforts to please. Very respectfully, your ob't servant,

J. G. SHELTON.

Giles F. Filley,

MANUFACTURER of the celebrated prize premium cooking stoves; also, Irving's air tight cooking stoves, fancy parlor stoves, fancy box and coal stoves; dealer in tin plate, copper, sheet iron, block tin, rivets, tinner's tools, machines, &c. Warehouse No. 163 north Main street, St. Louis, Mo. Foundry on Lewis street, near the water works.

TOBACCO.

T. MULLEN, Tobacco Commission Merchant, 21 Washington Avenue, St. Louis, Mo. for the sale of Cuba and Havanna Tobacco; also, for Virginia manufactured tobacco, for which he has the agency.

J. HENWOOD,

Hat Manufacturer, 72 Chesnut Street, St. Louis, Mo.

Missouri State Mutual Insurance Company.

DIRECTORS:—John O'Fallon, C. M. Valleau, Reuben Knox, Daniel D. Page, Oliver Bennett, John Sigerson, John S. McCune, Joseph A. Eddy, True W. Hoit.

This company is established upon the mutual principles of insurance, and is emphatically a home institution. The fire risks of this company are extended into all parts of this State. Its earnings are never employed or invested in stocks or real estate, but kept for the prompt liquidation of losses, and under the immediate control of the Directors. Every person insuring with this company becomes interested in its success, and its profits instead of being divided among a few stockholders, belong to those who insure in this company.

The Directors aware of the importance of a well secured fund, reliable in case of loss, and a mpleun der all ordinary calamity, assure the public that they have already apledged fund ample and reliable for any contingency, with a monthly increase of premiums f over ten thousand dollars. For the length of time this company ha s been in operation (six months) its business has been extended into all parts of the State and the city, and has received from the public a liberal patronage, which has placed it upon a permanent basis.

By an act incorporating this company, the parties insuring property therein, are entitled to the entire profits of the institution, the premium notes are also pledged by the charter for the payment of losses.

The portfolio of the company is at all times open to the inspection of its members and those wishing to make insurance with it. Policies are issued from thirty days to six years, thereby effecting a permanent insurance, with a return premium of from fifteen to fifty per cent, according to the term of insurance.

Agents for this company, may be found in all the principal towns in the State to whom applications may be made.

Office of the company over E. W. Clark & Bro., corner Main and Olive streets, Exchange building, where insurance will be effected at the tariff rates of premium.

C. M. VALLEAU, President,

H. D. BACON, Treasurer.

S. F. LEDYARD, Secretary.

Home Mutual Fire and Marine Insurance Company of St. Louis.

NOTWITHSTANDING the heavy loss sustained by this company in May last the stock notes now on hand amount to $350,000. The stock notes of the company are secured by lien upon real estate and approved endorsers. Office, No. 120 North Third street.

Directors:—I. L. Garrison, A. P. Ladew, P. Salisbury, Jno. Whitehill, Jos. A. Eddy, Henry Kayser, D. D. Page, Theron Barnum, John Kern.

ISAAC L. GARRISON President,

DD. PAGE, Treasurer,

PHILANDER SALISBURY, Secretary.

JOHN D. M'MURRAY JAMES M. DORMAN

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